

Service Name

AWS Elemental MediaTailor

Service Overview

AWS Elemental MediaTailor is a scalable ad insertion and channel assembly service that enables targeted advertisement content delivery and creation of linear streaming channels for over-the-top (OTT) video applications while maintaining broadcast quality. The service operates as a manifest-only solution, supporting server-side ad insertion (SSAI) for both live and video-on-demand (VOD) content across HTTP Live Streaming (HLS) and MPEG Dynamic Adaptive Streaming over HTTP (DASH) protocols. MediaTailor generates unique manifest files for each viewer, delivers personalized ads, and assembles linear channels using existing VOD and live content without touching the actual content segments.

Key Use Cases

- **Server-side ad insertion:** Insert personalized, targeted advertisements into live and VOD streams while maintaining broadcast quality and seamless playback
- **Channel assembly:** Create linear streaming channels using existing VOD content and live sources to build traditional broadcast-style experiences
- **Sports and live event monetization:** Deliver targeted ads during live sports broadcasts and events with precise timing and minimal latency
- **OTT platform monetization:** Enable streaming services to monetize their content libraries through personalized ad experiences
- **Multi-platform ad delivery:** Support cross-device ad insertion for web browsers, mobile apps, smart TVs, and set-top boxes

Features

- **Server-Side Ad Insertion (SSAI):** Inserts advertisements upstream before delivery, ensuring seamless playback without discrimination between content and ads
- **Channel Assembly:** Creates linear streaming channels using existing VOD content and live sources without touching content segments
- **Dynamic Transcoding:** Automatically matches ad quality and format to primary video content for optimal viewing experience
- **HLS Interstitials Support:** Enables insertion of interstitial advertisements directly into live streams using HLS Interstitials specification
- **Advanced Ad Tracking:** Provides server-side beaconing, beacon deduplication, adaptive throttling, and in-order beacon delivery
- **Time-Shifted Viewing:** Supports DVR-like functions including start-over, pause, rewind, and fast-forward capabilities

- **Multi-Protocol Support:** Supports HLS, DASH, and CMAF streaming protocols for broad device compatibility
- **Personalization:** Delivers targeted ads based on viewer demographics, interests, and location preferences

Value Proposition

MediaTailor offers superior server-side ad insertion that maintains broadcast-quality streaming while providing personalized ad experiences. Unlike client-side solutions, it eliminates ad blockers' ability to skip ads and ensures consistent quality across all devices:

- The service automatically scales with viewership, requires no upfront commitments or contracts, and integrates seamlessly with existing AWS Media Services workflows
- Key advantages include frame-accurate ad transitions, comprehensive measurement and reporting capabilities, support for industry standards like VAST/VMAP/VPAID, and the ability to monetize both live and VOD content effectively
- MediaTailor reduces operational complexity by handling ad transcoding, manifest manipulation, and beacon tracking automatically

Service Integration

MediaTailor integrates deeply with AWS Media Services ecosystem, particularly AWS Elemental MediaPackage for content packaging and distribution, AWS Elemental MediaLive for live video processing, and AWS Elemental MediaConnect for secure video transport. The service leverages Amazon CloudFront as a CDN for global content delivery and manifest distribution:

- Integration with AWS Identity and Access Management (IAM) provides secure access control, while Amazon CloudWatch enables comprehensive monitoring and logging
- MediaTailor also connects with AWS Elemental MediaConvert for on-demand transcoding needs and can utilize Amazon S3 for content storage and Amazon Data Firehose for log delivery

Onboarding and Offboarding

Customers begin by accessing the MediaTailor console through their AWS account and creating a playback configuration with required settings including a unique name, content source URL prefix, and ad decision server URL. The service offers two main tutorials: ad insertion for incorporating personalized ads into content streams, and channel assembly for creating linear streaming channels:

- Getting started requires preparing HLS or DASH compatible manifests, configuring ad decision server integration, and setting up optional features like CDN integration, logging, and personalization thresholds
- MediaTailor provides comprehensive documentation, API references, and step-by-step guides to facilitate smooth onboarding

Getting Started Guide: <https://docs.aws.amazon.com/mediatailor/latest/ug/getting-started.html>

Data Removal

Data removal involves deleting MediaTailor configurations, channels, and associated resources through the console, CLI, or API. Customers should clean up playback configurations, channel assembly components including channels, source locations, and VOD sources. Log data stored in Amazon CloudWatch, S3, or Data Firehose follows respective service retention policies. Since MediaTailor operates as a manifest manipulation service without storing actual video content, data removal primarily involves configuration and metadata cleanup rather than content deletion.

Backup/Restore and Disaster Recovery

MediaTailor leverages AWS global infrastructure built on Regions and Availability Zones for inherent resilience and disaster recovery. The service automatically handles failover between Availability Zones without interruption. Configuration data and channel assembly settings are maintained within AWS managed infrastructure. Customers can export configuration settings programmatically and recreate them in different regions if needed. The service's manifest-only architecture minimizes data loss risks since actual video content remains in customer-controlled storage locations.

Backup Capabilities

MediaTailor does not provide traditional backup capabilities as it operates as a manifest manipulation service without storing video content. Configuration data is maintained within AWS managed infrastructure with built-in redundancy:

- Customers can programmatically export and recreate configurations using APIs or Infrastructure as Code tools
- The service does not directly integrate with AWS Backup since it primarily manages metadata and configurations rather than data requiring traditional backup operations

Disaster Recovery

MediaTailor supports disaster recovery through AWS's multi-AZ infrastructure and regional deployment options. The service automatically provides failover capabilities within regions through Availability Zone redundancy:

- For cross-region disaster recovery, customers can recreate configurations and channel assembly setups in alternate regions
- MediaTailor does not integrate with AWS Elastic Disaster Recovery as it manages configuration metadata rather than application workloads requiring replication and failover orchestration

Recovery Objectives

MediaTailor helps achieve low RTO objectives through its managed service architecture that automatically handles infrastructure failover within AWS Availability Zones. RPO is minimal since the service primarily manages configuration data that can be quickly recreated. Customers can implement cross-region setups for additional resilience, with configuration recreation possible within minutes using APIs or Infrastructure as Code. The manifest-only architecture ensures that actual content remains available from origin sources during recovery scenarios.

Service Constraints

Service Quotas: <https://docs.aws.amazon.com/mediatailor/latest/ug/quotas.html>

FAQ: <https://aws.amazon.com/mediatailor/faqs/>

Technical Requirements

Service Documentation: <https://docs.aws.amazon.com/mediatailor/latest/ug/what-is.html>

User Guide: <https://docs.aws.amazon.com/mediatailor/latest/ug/>

API Reference: <https://docs.aws.amazon.com/mediatailor/latest/apireference/>

Pricing Overview

Please see the AWS UK G Cloud 15 Pricing Document accompanying this service in the Digital Marketplace.

Public Pricing: <https://aws.amazon.com/mediatailor/pricing/>

Cost Optimization

MediaTailor offers unique cost optimization through its new pricing model with VOD ad insertions priced at 50% of live streaming costs (\$0.25 vs \$0.50 per 1,000 insertions). The service includes the first 10 ad transcodes per 1,000 insertions at no charge, with additional transcoding charged at MediaConvert rates:

- Channel assembly utilizes existing encoded content without re-transcoding, minimizing processing costs

- Features like MediaTailor Vended Logs and Log Filtering reduce logging expenses by allowing selective log delivery to cost-effective storage options like S3 instead of CloudWatch
- CDN integration optimization and cache configuration can significantly reduce origin request costs

Savings Considerations

Primary savings come from the 50% reduced VOD pricing model compared to live streams, making ad-supported VOD libraries more cost-effective. Included ad transcoding allowances (first 10 per 1,000 insertions) reduce processing costs for standard use cases:

- Channel assembly leverages existing content assets without additional transcoding, maximizing ROI on content libraries
- Strategic CDN configuration with proper caching reduces origin requests and data transfer costs
- Log filtering and alternative storage options (S3 vs CloudWatch) can reduce operational expenses by up to 90% for logging-intensive deployments
- Volume commitments above 60 million monthly insertions qualify for additional discounted pricing tiers