Ant Media Server

The one stop real-time streaming platform

Why Ant Media Server?

• Ready-to-use, highly scalable real-time video streaming solutions for live video streaming.
• Extensive APIs to upload, encode, transcode and stream videos.
• Ability to restream to social media platforms.
• Adaptive bitrate streaming to make sure videos can be played in every platform without jitter.
• Widest SDK coverage, with support for web, iOS, Android, desktop apps and IoT devices.

Product overview

Ant Media provides ready-to-use, highly scalable real-time streaming solutions for live video streaming needs. Its powerful backend can be deployed easily and quickly on-premises or on AWS.

Ant Media Server’s cluster mode dynamically scales up and down to enable our customers to serve millions of viewers in an automated and controlled way.

Product Features

• Ultra low latency adaptive one to many WebRTC live streaming
• Scalable to hundreds of thousands of simultaneous viewers
• Adaptive bitrate for live streams (WebRTC, MP4, HLS)
• VP8 & H264 support in WebRTC
• Data channel support in WebRTC
• CMAF streaming support
• Horizontal clustering and vertical scaling
• SFU in one to many WebRTC Streams
• Live stream publishing from RTMP to WebRTC
• Restream to social media simultaneously (e.g Facebook and Youtube)
• Hardware encoding (Nvidia GPU, QuickSync)
• Secure video streaming using one-time token control
• Object detection via Tensorflow.

Additional Resources

• [Website](#)
• [Documentation](#)
• [AWS quick start video](#)
• [Code quality](#)
How it works

- **Load balancer**: LB is the entrance point for the publishers and players. It accepts the requests from publishers or players, and forwards them to an available node.
- **Origin auto-scalable group**: Nodes (instances) in the origin group accept the publish requests and ingest the incoming WebRTC stream. When an origin instance accepts a WebRTC stream, it saves the related information to the MongoDB Database Server. There may be one node or multiple nodes in the origin group. It can also be auto-scalable in AWS.
- **Edge auto-scalable group**: Nodes (instances) in the edge group accept play requests. They learn from MongoDB which origin node has the related stream. After this, they get the stream from the related origin node and send the stream to the player.
- **MongoDB server**: Ant Media Server uses MongoDB for clustering. Stream information is saved to MongoDB. This way, edge instances can learn a stream’s origin node.

Differentiators

- Get full control over scaling your streamers and viewers.
- Easily deploy on AWS using Cloudformation.
- Scale your infrastructure automatically, without manual intervention, as the traffic changes.
# Product Specifications

<table>
<thead>
<tr>
<th>Streaming Protocols</th>
<th>WebRTC</th>
<th>HLS</th>
<th>CMAF (LL-DASH /LL-HLS)</th>
<th>RTMP / RTSP</th>
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<tbody>
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JavaScript, native iOS and Android SDKs available for all protocols.

<table>
<thead>
<tr>
<th>Latency</th>
<th>~0.5-Seconds</th>
<th>8-12 Seconds</th>
<th>3-5 Seconds</th>
<th>1 Second (RTMP/RTSP-to-WebRTC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input/Output</td>
<td>Both</td>
<td>Output</td>
<td>Output</td>
<td>Input, Push to RTMP Endpoint</td>
</tr>
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</table>

## System Requirements

<table>
<thead>
<tr>
<th>Operating System</th>
<th>Ubuntu 18.04 &amp; 20.04, Centos 8, Mac(Partial)</th>
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<tbody>
<tr>
<td>Java</td>
<td>11</td>
</tr>
<tr>
<td>Architecture</td>
<td>x86_64, ARM64</td>
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<tr>
<td>Minimum Required Hardware</td>
<td>3.00Ghz, 4-cores CPU and 8GB RAM</td>
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<tr>
<td>VPS, Bare Metal, Docker, Kubernetes</td>
<td>Supported</td>
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<tr>
<td>Implementation</td>
<td>C, C++, Java, Angular</td>
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## Data Points

- **1200** Paying customers
- **7200** Active instances
- **2 Billion** Minutes streamed per month
- **130** Countries

## What our customers are saying

*"Literally cut down our development times by 95% and is full of features."*

- Co-Founder at PubNinja

Solution available in [AWS Marketplace](https://aws.amazon.com/marketplace/)