

Cloud Streaming Server

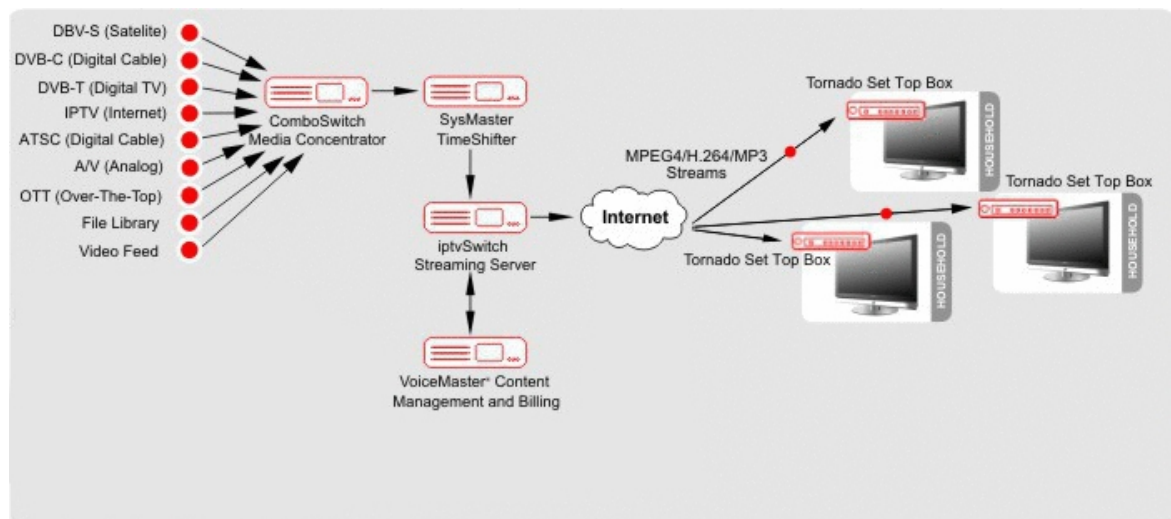
Announcement System

KEY FEATURES

- **CDN Environment Support**
- **Geo-Location Streaming Support**
- **Automated Media File Distribution**
- **Managed CDN Services Support**
- **High-Quality MPEG4 and H.264 Video Streaming**
- **High Streaming Capacity**
- **Stream Redistribution Support**
- **TCP Streaming Support**
- **UDP Streaming Support**
- **Multicast Streaming Support**
- **Subscriber Authorization and Stream Encryption**
- **Web-Based Remote Management**
- **Fully Integrated IPTV Delivery Solution**
RTSP, TS, RTP, HTTP, ASF, AVI, MMS, FLV, HLS Streaming Support
- **Flash Player Streaming Support**
- **100+ Over-The-Top (OTT) and Free-To-Air (FTA) Channel Support ***

Product Overview:

Cloud Streaming Server is a universal cloud content streaming server designed for implementation in IPTV, Video-on-Demand, Audio-on-Demand, and Pay-per-View infrastructure in CDN (Content Delivery Network) environment. The product receives MPEG-4, H.264 and MP3 streams from headend encoders, content storage servers or online sources (OTT) and distributes them to subscribers. Cloud Streaming Server easily integrates with SysMaster's VoiceMaster® Content Management and Billing, comboSwitch Media Concentrator and Tornado Digital Media Center into a fully integrated IPTV CDN delivery solution.



CDN Environment Support

Cloud Streaming Server is designed to support Content Delivery network real-time and VOD file distribution. The server supports popular IPTV streaming (TS, HTTP, FLV, SM) as well as mobile streaming format (HLS, Flash).

Geo-Location Streaming Support

Cloud Streaming Server supports geo-recognition function to allow detection of client requests and forwarding the requests to the closest geographically located Cloud Streaming Server. The system will try to optimize bandwidth utilization and network latency and provide the best possible stream delivery route for each individual IPTV client.

Automated Media File Distribution

Cloud Streaming Server uses automated replication procedures for VOD and media file distribution to guarantee that all underlying Cloud Streaming Servers replicate a master server's directory. The procedure is very efficient and helps to optimize media file mirroring and bandwidth utilization.

Managed CDN Services Support

Cloud Streaming Server allows managed CDN services to provide partitioning and renting of the Cloud CDN capabilities to third-party providers. This function opens new opportunities for lucrative business ventures for both new and existing businesses.

High Streaming Capacity

Cloud Streaming Server offers high streaming capacity to allow scalable IPTV implementations. Depending on the stream delivery method, a single server can support up to 500 UDP, 200 TCP or 1000 Multicast connections to subscribers.

Support for Stream Redistribution

Cloud Streaming Server offers stream redistribution functionality that reduces load to original content servers and optimizes bandwidth utilization. The server can retrieve streams from online sources (e.g. Internet radio streams encoded in MP3 format) and redistribute them to subscribers. Because redundant connections to the original content servers are eliminated, the load of such servers is reduced and bandwidth utilization is optimized.

TCP Streaming Support

Cloud Streaming Server supports content distribution to subscribers via TCP connections. TCP streaming is typically utilized in distributed network environments, such as WANs, where providers do not own local loop to subscribers. That is also the most universal distribution method, as it allows content delivery to geographically dispersed subscribers. A drawback of TCP streaming is reduced capacity of the streaming server relative to alternative streaming methods.

UDP Streaming Support

Cloud Streaming Server also supports content distribution via UDP connections. UDP streaming allows greater number of connections to the streaming server but may result in reduced quality of the streamed content in networks with high percentage of packet loss.

Multicast Streaming Support

For implementations in LAN environment, Cloud Streaming Server offers multicast content distribution. Multicast distribution allows one stream to be delivered to theoretically unlimited number of LAN subscribers with very low bandwidth utilization. In multicast mode, each media packet is sent once in a broadcast fashion so that each subscriber can receive it without creating an individual link to the streaming server.

Subscriber Authorization and Stream Encryption

Cloud Streaming Server enables providers to prevent unauthorized use of streaming content. Before granting access to content, Cloud utilizes a content billing server, such as VoiceMaster® Content Management and Billing, to authenticate and authorize subscribers in real-time. Additionally, the product can encrypt all content streams utilizing MD5 algorithm which allows only authorized subscribers to access the streaming content.

Web-Based Remote Management

Cloud Streaming Server offers convenient configuration and maintenance via a GUI console. Administrators can securely login to the console via a web browser and perform all necessary tasks remotely. That feature enables providers to easily outsource product administration to third parties and minimize operational costs.

Fully Integrated IPTV Delivery Solution

Providers who want to offer voice, video and data services but want to minimize equipment integration costs will certainly appreciate the Cloud Streaming Server. The product fully integrates with SysMaster's VoiceMaster® Content Management and Billing, comboSwitch Media Concentrator and Tornado Digital Media Center into a fully integrated solution for delivery of IPTV, Video-on-Demand, Pay-per-View, Audio-on-Demand, Online Radio and other triple play services.

RTSP, TS, RTP, HTTP, ASF, AVI, MMS, FLV, HLS Streaming Support

Cloud Streaming Server offers a variety of streaming options to allow universal IPTV deployments. The streaming server can support different types of STB devices based on the selected media distribution type.

Flash Player Streaming Support

The server provides advanced Flash Streaming support to allow Flash players to play H264/MP3 streams. This makes streaming environment independent and allows all advanced HTML browsers to play the stream in real-time.

100+ Over-The-Top (OTT) and Free-To-Air (FTA) Channel Support *

The server includes over 100 built-in OTT and FTA channels that allow service jump-start with a large number of pre-defined channels. In addition, the OTT channels do not require bandwidth support because the STB devices will access them directly without connecting to the Streaming server. OTT and FTA channels are great IPTV service complement that provides better channel variety and selection.