

# iptvSwitch

## Streaming Server

### KEY FEATURES

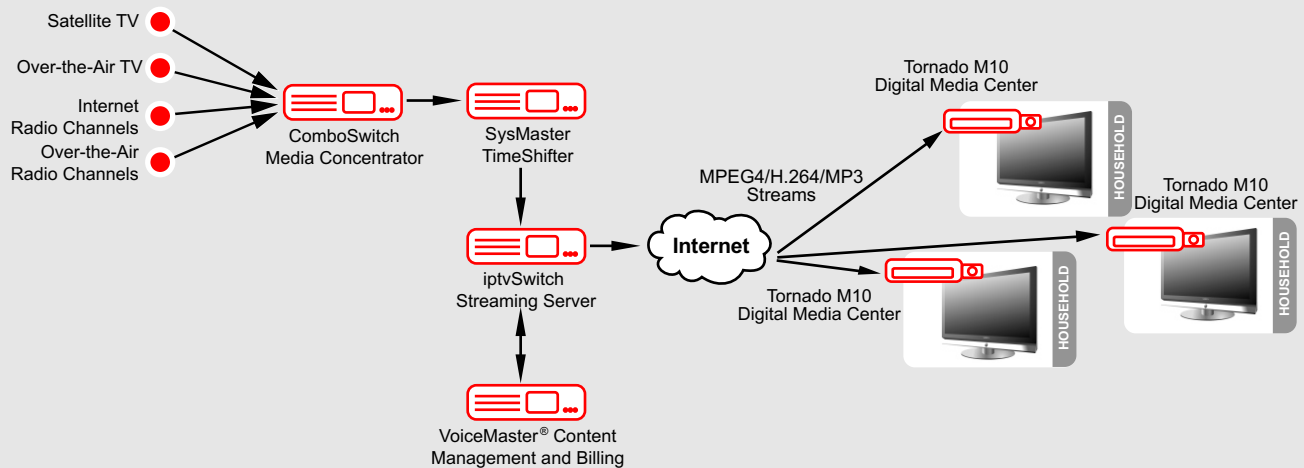
- High-Quality MPEG4 and H.264 Video Streaming
- High Streaming Capacity
- Stream Redistribution Support
- TCP Streaming Support
- UDP Streaming Support
- Multicast Streaming Support
- Subscriber Authorization and Stream Encryption
- Web-Based Remote Management
- RTSP, TS, RTP, HTTP, ASF, AVI, MMS Streaming Support

### Product Overview

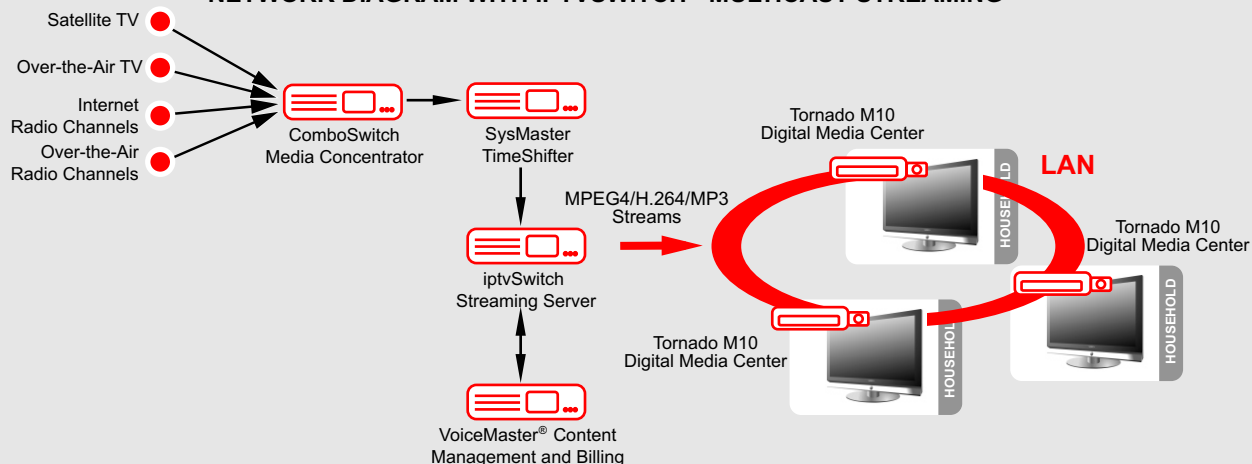
iptvSwitch Streaming Server is a universal content streaming server designed for implementation in IPTV, Video-on-Demand, Audio-on-Demand, and Pay-per-View infrastructure. The product receives MPEG4, H.264 and MP3 streams from headend encoders, content storage servers or online sources and distributes them to subscribers. iptvSwitch easily integrates with SysMaster's VoiceMaster® Content Management and Billing, comboSwitch Media Concentrator and Tornado M10 Digital Media Center into a fully integrated IPTV delivery solution.

### IPTVSWITCH STREAMING SERVER

#### NETWORK DIAGRAM WITH IPTVSWITCH - TCP/UDP STREAMING



#### NETWORK DIAGRAM WITH IPTVSWITCH - MULTICAST STREAMING



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## Streaming Server

### High-Quality MPEG4 and H.264 Video Streaming

iptvSwitch Streaming Server is designed to deliver high-quality video streaming over broadband wireline and wireless IP networks. The product supports streaming of highly compressed MPEG4 and H.264 video streams requiring as low as 350Kbps bandwidth per stream at 640x480 VGA resolution. Such low bandwidth requirements enable providers to offer high quality video services to subscribers over standard DSL or cable lines.

### High Streaming Capacity

iptvSwitch 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

iptvSwitch 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

iptvSwitch 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

iptvSwitch 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, iptvSwitch 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

iptvSwitch Streaming Server enables providers to prevent unauthorized use of streaming content. Before granting access to content, iptvSwitch 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

iptvSwitch 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.

### RTSP, TS, RTP, HTTP, ASF, AVI, MMS Streaming Support

iptvSwitch 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.



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