Video Conferencing Server SDK with Mobile Clients

VideoMost® SDK is an all-inclusive set of VVoIP media processing technologies, signaling protocols and collaboration tools for licensing to telecom operators, service providers and software developers

VideoMost® SDK is video conferencing software server complete with mobile IM video client working across different OS (including Android, iOS, Mac OS, Windows and Linux) and web browsers. This enterprise-ready product delivers SVC HD voice and video and supports up to 16 videos on a mobile screen. In addition to HD videoconferences a wide range of collaboration tools are available. VideoMost® SDK enables embedding group mobile video call into your app as a function. VideoMost® SDK supports both SIP and H.323 protocols for legacy video conferencing hardware interoperability. With VideoMost® SDK telecom operators and service providers can bring additional revenue along with increased subscriber base and strengthen loyalty.
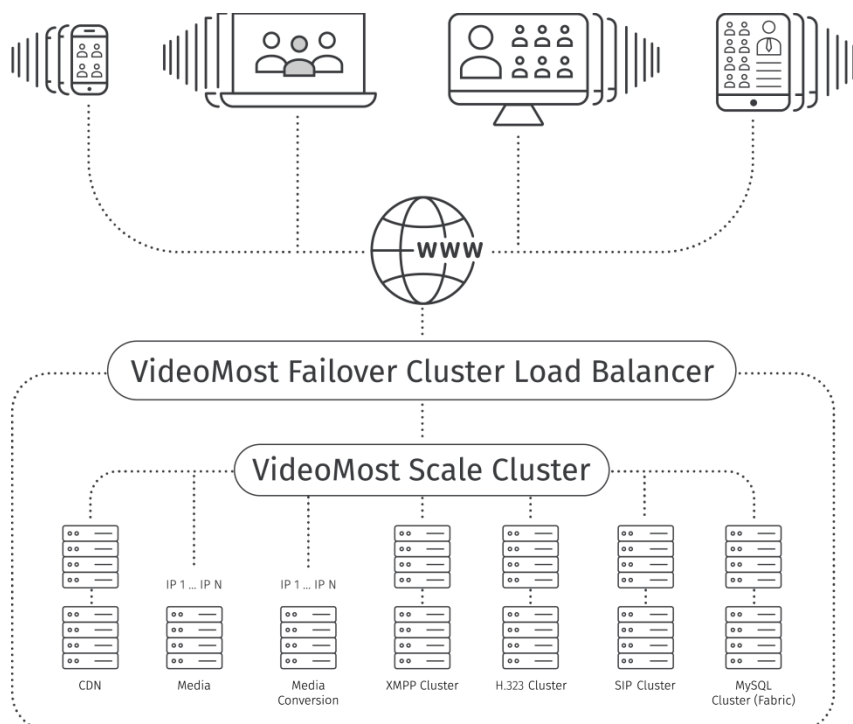
World Top Performance and Scalability

- HD voice and video
- 16 videos on mobile screen
- 100 people in a room
- 1000 concurrent video channels per $2K PC server
- Android, iOS, Windows, Mac, Linux clients
- WebRTC support
- Content sharing
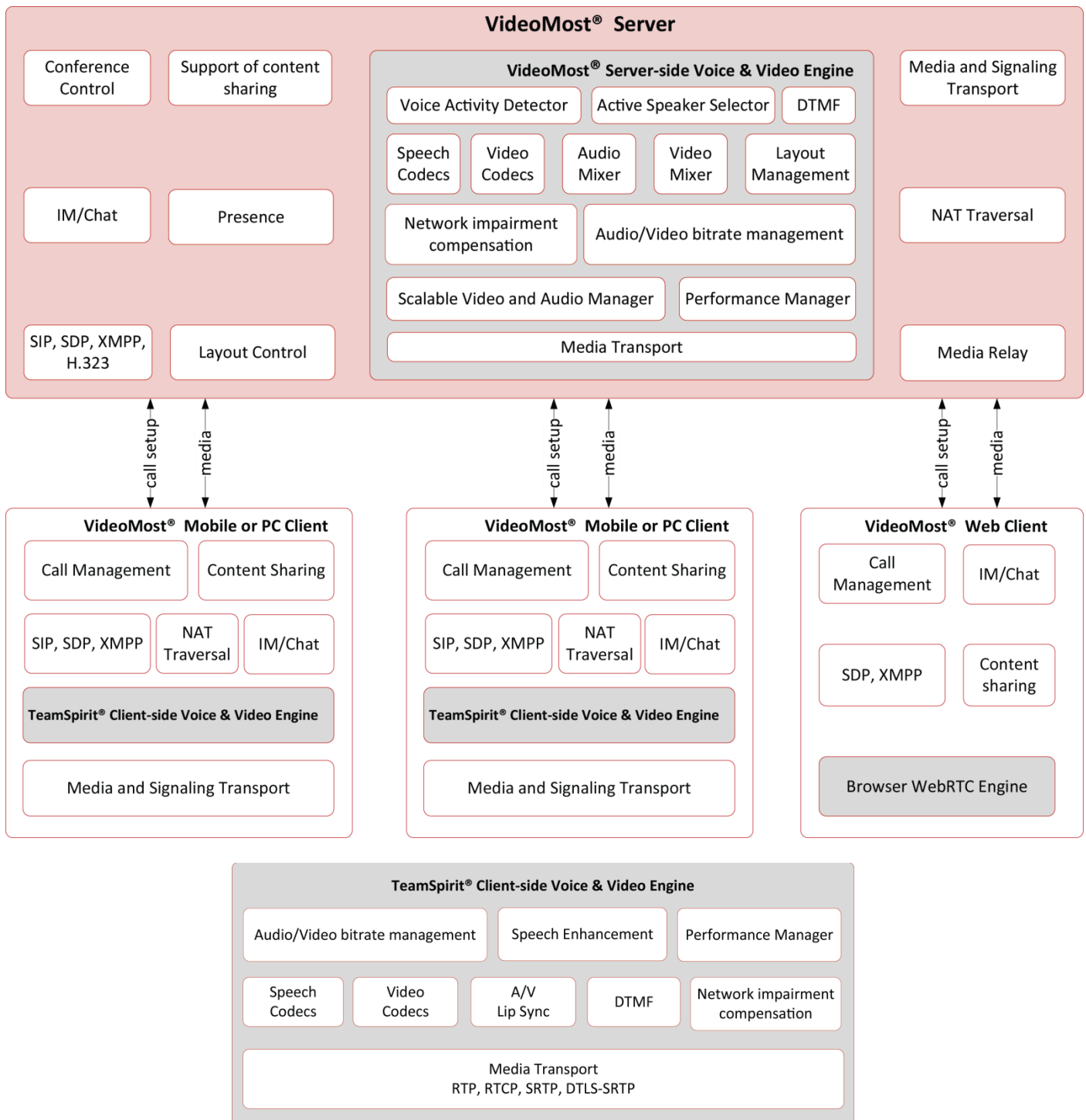- RTSP broadcasting

Scalability of VideoMost® Server

Currently single VideoMost® server (using quad 3 GHz CPUs) can handle up to 1000 video ports. VideoMost® cluster can handle virtually unlimited number of users/ports. Typical cluster scheme is shown below.

VideoMost Failover Cluster Load Balancer

VideoMost Scale Cluster

CDN   Media   Media Conversion   XMPP Cluster   H.323 Cluster   SIP Cluster   MySQL Cluster (Fabric)

IP 1 … IP N   IP 1 … IP N

VideoMost® SDK is a client-server software product. Its media processing core is SPIRIT's VideoMost® Conferencing Engine that provides high-quality voice and video processing and transmission over IP networks.

VideoMost® Server

Conference Control	Support of content sharing
IM/Chat	Presence
SIP, SDP, XMPP, H.323	Layout Control

VideoMost® Server-side Voice & Video Engine

| Voice Activity Detector | Active Speaker Selector | DTMF |

| Speech Codecs | Video Codecs | Audio Mixer | Video Mixer | Layout Management |

| Network impairment compensation | Audio/Video bitrate management |

| Scalable Video and Audio Manager | Performance Manager |

| Media Transport |

| Media and Signaling Transport |
| NAT Traversal |
| Media Relay |

↕ call setup ↕ media   ↕ call setup ↕ media   ↕ call setup ↕ media

VideoMost® Mobile or PC Client

| Call Management | Content Sharing |
| SIP, SDP, XMPP | NAT Traversal | IM/Chat |

TeamSpirit® Client-side Voice & Video Engine

| Media and Signaling Transport |

VideoMost® Mobile or PC Client

| Call Management | Content Sharing |
| SIP, SDP, XMPP | NAT Traversal | IM/Chat |

TeamSpirit® Client-side Voice & Video Engine

| Media and Signaling Transport |

VideoMost® Web Client

| Call Management | IM/Chat |
| SDP, XMPP | Content sharing |

Browser WebRTC Engine

TeamSpirit® Client-side Voice & Video Engine

| Audio/Video bitrate management | Speech Enhancement | Performance Manager |

| Speech Codecs | Video Codecs | A/V Lip Sync | DTMF | Network impairment compensation |

| Media Transport RTP, RTCP, SRTP, DTLS-SRTP |

TeamSpirit® Mobile Video Call SDK for p2p video calls and VideoMost® Server-side Voice & Video Engine for conferencing are available for separate licensing. Start from p2p video client and then progress to video conferencing service using the same VideoMost® SDK. TeamSpirit® Mobile Video Call SDK and VideoMost® SDK are fully compatible with each other, no need to waste time and money for integration.

Specifications

Capabilities	**Basic features:** • Call and conference management • Notifications • Recording and playback (including text)[1] • Contact management & search • Contact status • Allow multiple audio, video and data sources per participant • Virtual cameras • Layout control • Signaling configuration • Transport configuration **Collaboration tools:** • Screen, application and content sharing • IM text messaging • Moderation of meeting rooms and participants • Multi-party video calls **Customization:** • Layouts • Conference topology • Quality control • Rendering engine • Custom infrastructure
Server API	• XML-RPC
Clients API	• C/C++, Java, JavaScript
Server Platforms	• OS: Linux • Web servers: Apache, NGINX
Clients Platforms	• Windows, Mac OS, Android, iOS
Browsers	• Chrome, Firefox, Internet Explorer, Safari
Capacity	• Up to 100 concurrent interactive video participants per conference[2] • Up to 1000 concurrent video calls per conferencing server[3] • Up to 16 videos on a mobile screen
Speech Codecs*	• SPIRIT IP-MR™ (RFC 6262) • ITU-T G.711, G.722, G.722.1, G.722.2 (AMR-WB), Opus, Speex
Video Codecs*	• H.264 AVC (Baseline Profile, level 5.1, RFC 3984, MMCO (Part 8.2.5.4 of ITU-T H.264-2012-01)) • SPIRIT scalable H.264 (temporal and spatial scalability) • Google VP8 AVC
Signaling	• SIP (RFC 3261) • XMPP (RFC 6120, RFC 6121) • ITU-T H.323
Transport	• UDP, TCP, HTTP • NAT/Firewall traversal

[1] *Playback media files in *.avi or *.mkv format trough a commodity media player*

[2] *Target configuration for 100 ports (SPIRIT IP-MR™/ SPIRIT scalable H.264-based connections, 1 conference of 100 participants with CIF@20fps, 400Kbps each) per Intel Xeon 5020 2.5 GHz (x2), 4Gb RAM server. More ports require additional hardware running VideoMost Server*

[3] *Target configuration for 1000 ports (SPIRIT IP-MR™/ SPIRIT scalable H.264-based connections, 100 conferences of 10 participants with CIF@20fps, 400Kbps each) per Intel Xeon E5-2687W 3.1 GHz (x8), 8Gb RAM server. More ports require additional hardware running VideoMost Server*