



SURF Engine - everything you need  
for a winning multimedia application

The SURF Engine powers a variety of multimedia applications in different market segments  
 Take a look at some ***SURF-Powered Applications***

### Mobile Video

- Mobile live streaming
- Mobile VOD
- Web to mobile
- Mobile video QoE boosting
- Video ad insertion
- iPhone applications
- Network optimization

### Web-based video conference

- Multi-screen conferencing
- Mass conferencing
- Video sharing
- Desktop sharing

### IMS / NGN

- Media Gateway
- Session Border Controller
- MRF
- IVVR
- VoIP Gateway
- Video conferencing
- Video mail
- Video RBT

### User Generated Video

- Real-time ingest transcoding
- UGV to mobile
- UGV to TV
- Video ad injection
- Video enrichment
- Video QoE boosting

### CDN

- On demand transcoding
- Mobile CDN
- UGV transcoding
- QoE boosting
- Edge ad serving

### Interactive TV IPTV, OTT-TV

- Web to TV
- TV to mobile
- TV to web
- On-screen surveillance
- Place shifting of home content
- On-TV conferencing



In a multimedia world, where millions of videos are generated daily, network boundaries are dissolving, and screens are taking every form we can imagine – getting an exciting application to the market is more challenging than ever.

Of course, you need an excellent idea, well designed interface, flexible business logic, content sources - merits that differentiate your application. Yet, you spend most of your attention and budget on getting the video running - decoding, encoding, streaming, transcoding, resizing, transrating, overlaying, complying, mixing, enhancing, optimizing. At the end of the day, your video processing is compromised in terms of quality, compliance, richness, density, etc. Busy with those pressing issues, you can no longer focus on the star of the show, your distinctive application.

At SURF Communication Solutions, we believe you should not have to compromise on innovation because of a lack of resources or time. That's why we created the SURF Engine, providing all those ingredients necessary for winning video services already fully developed and built in. Now, you can achieve the best multimedia quality, guaranteed compliance with new formats and rich video manipulations without delay and without unnecessary R&D costs. Suitable for any multimedia application, the must-have SURF Engine infrastructure assures easy delivery of any content to any screen over any network.

To achieve optimal performance, density and cost, the SURF Engine is based on DSP technology, and delivered as an extension board or an appliance. Integrating with the SURF Engine is simpler than with a software library, using SURF's variety of APIs.

The SURF Engine powers multimedia applications developed by leading vendors worldwide. Deployed by over a hundred operators and service providers, SURF-powered applications are servicing many millions of end-users every day.

## Benefits

- Reduce time-to-market
- Exploit market opportunities
- Focus on differentiation
- Deliver best-of-breed video processing
- Optimize R&D cost and risk
- Minimize cost per channel
- Ensure compliance with future standards

The SURF Engine incorporates all the multimedia-processing ingredients needed to develop a winning application. *Your Multimedia Application*

### Interface

C-level, CLI, SMIL

### Application Elements

RTSP streamer, HTTP Live, Adaptive HTTP  
Telephony interactivity

### Real-time Enrichment

Dynamic layout, Scrolling text overlay, Image background, Image overlay, Alpha blending, Line & box drawing, Picture in picture, Soundtrack mixing

### Manipulations

Transcoding, Transrating, Frame rate adjustment, Resizing, Mixing, Conferencing

### Quality enhancers

Dynamic bit-rate adaptation, Adaptive HTTP BRA, Input jitter buffer, I-frame enhancements, Voice QoS enhancers

### Codecs, formats, transports

3GP, 3GP2, MP4, WMV, AVI, BMP, FLV, F4V, TS, H.264, H.263, MPEG4, MPEG2, RTP, HTTP MPEG2-TS, 3G-324M, SRTP, luUP/NbUP, TDM, iTDM, Wireline voice, AMR, GSM, EVRC, WB-AMR, G.711.1, AAC-LC, WMA

### Hardware

AMC, PTMC, PCI, PCIe, Appliance

