

AVS Video Solutions

Video innovation: High Definition Rich Media Webcasting



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Video innovation AVS Video Solutions: a new continuation of ATDI solutions

Personal computers and the internet have become such a regular part of everyday life that it is hard to imagine life without them. As home computer popularity grows, the desire for dynamic high resolution visuals has also grown. At the same time, business and service providers are seeking better solutions to expose their products. As an answer to this growing market ATDI has created AVS Video Solutions with advanced technology in online video streaming.

AVS Video Solutions are the most complete online live broadcasting solutions for managing, distributing and commercialising events. These innovative solutions will allow companies to broadcast and advertise video content in high definition using full screen display in real-time or VOD.

There are three main solutions: AVS Live, AVS Metrics, and AVS Ad-Serving. Each is aimed at different commercial functions;

AVS Live: handles any type of live event with user interaction

AVS Metrics: measures your users in real-time

AVS Ad-Serving: optimises the quality of your online promotion

AVS Video Solutions have opened doors for large multimedia events such as sports, concerts, and festivals, to be broadcast live into homes worldwide, reaching millions. These new advances will allow audience enjoyment and involvement in ways never before imagined by live show providers and advertisers alike.

The main features of AVS Video Solutions are:

Webcast in live and VOD content in HD using full screen

HD video provides a state-of-the-art visual experience

Extreme user interactivity with Rich Media support

Ability to maximise commercial potential through multiple advertising solutions

The ability to attract new consumers to live and VOD webcast events provides an opportunity to reach a significantly increased audience. Broadcasters have numerous business model options from subscription to regular services, PAYG for one off events such as concerts and sports, or free, with or without advertising, for the delivery of public or corporate information.



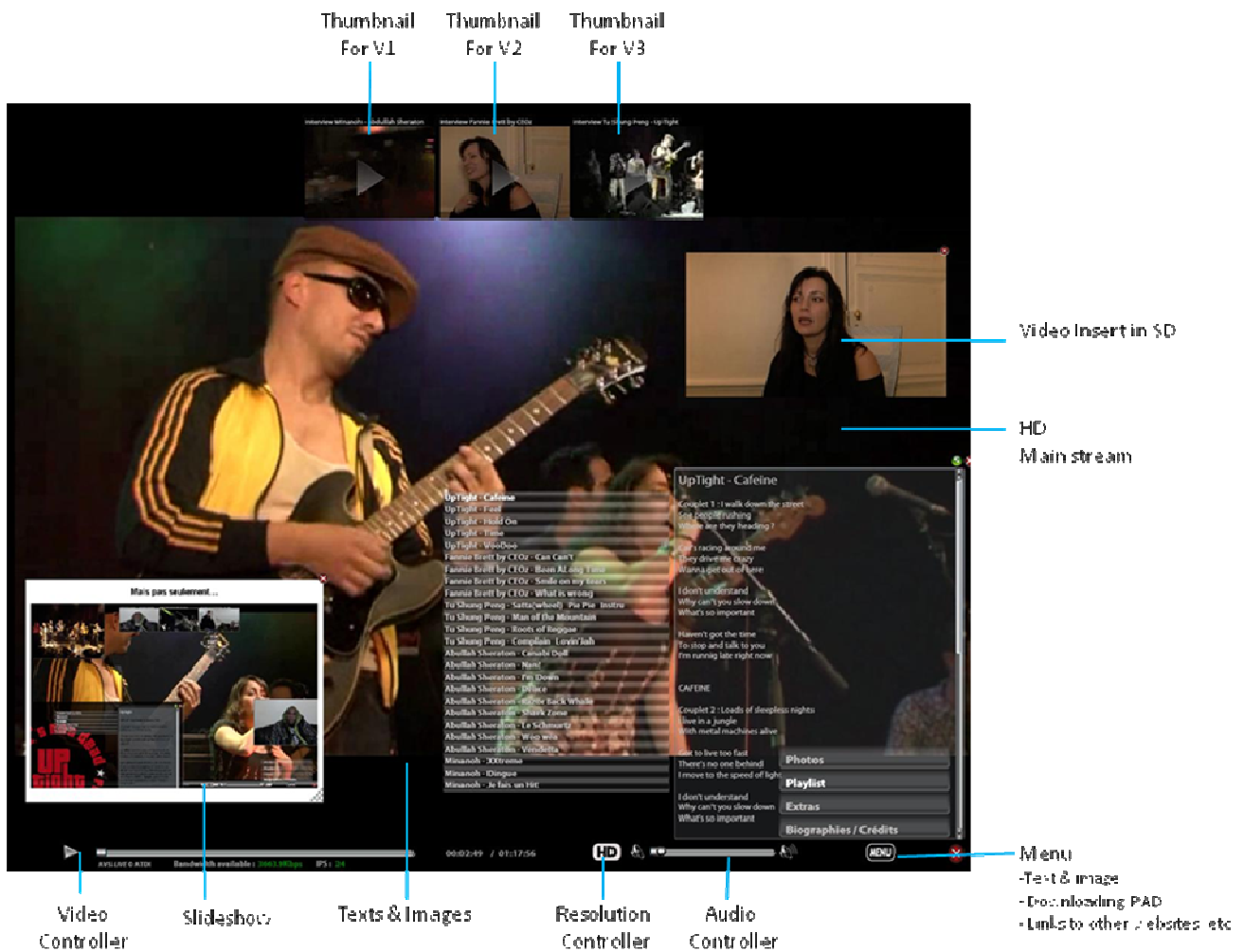
AVS Live, webcast your events using HD and user interaction in real-time

Tickets for concerts and sporting events have been getting more and more extravagant every year. What if there was a way to bring the show to the fans, fans that would be willing to pay for tickets to view their favourite musicians and sports stars from their homes? What if they can enjoy the show with their friends having a party at the same time? What if they want to know what is going on behind the scenes?

AVS Live will satisfy that audience. AVS Live delivers concerts, cultural events, sports, festivals, conferences or any kind of live event to audiences in real-time. Vivid visuals in high definition with multi camera angles, a slideshow, and overlaid information of texts and images will highlight your events.

AVS Live brings to life a new era of rich media web broadcasting. Audiences will experience endless enjoyment through the unique functions. The extreme rich media interactivity will allow your audience to be actively involved in the webcasting. The Picture in Picture (PiP) function lets audiences choose what to view at will, including the ability to select any audio-visual clip or image/text file, even slideshow files for their own broadcasting. Users are able to participate in online discussions or have conversations with other users during the show. Other website links will fulfil your audiences' needs to find more information about the show.

Consider the following example: At the beginning of a concert, content providers can broadcast the arrival of the musicians, the backstage preparation and interviews with the musicians, During the show they can view the lyrics of the songs and other information about the artists. In order to monetise the event, the providers can display the album cover and images of the musicians, which can also be ordered online through links to payment solution websites. The logos of the sponsors will be displayed on the screen which will shows the information of sponsors' products and services. While the show is on, they can advertise upcoming concerts and events as well.



AVS Live Rich Media Platform Inputs/Outputs:

- Up to 2 principal flows (Video SD and HD)
- Up to 3 video inserts (Video SD)
- 1 slideshow
- 1 playlists
 - Artist and album information
 - Other commercial information
- 1 menu: texts & images information, downloading files in pdf, jpeg, mp3, etc. websites' links, etc.
- Advertisements

Summary of AVS Live Main Features:

- Unlimited live events webcasting
- Unlimited streaming with multi camera angles

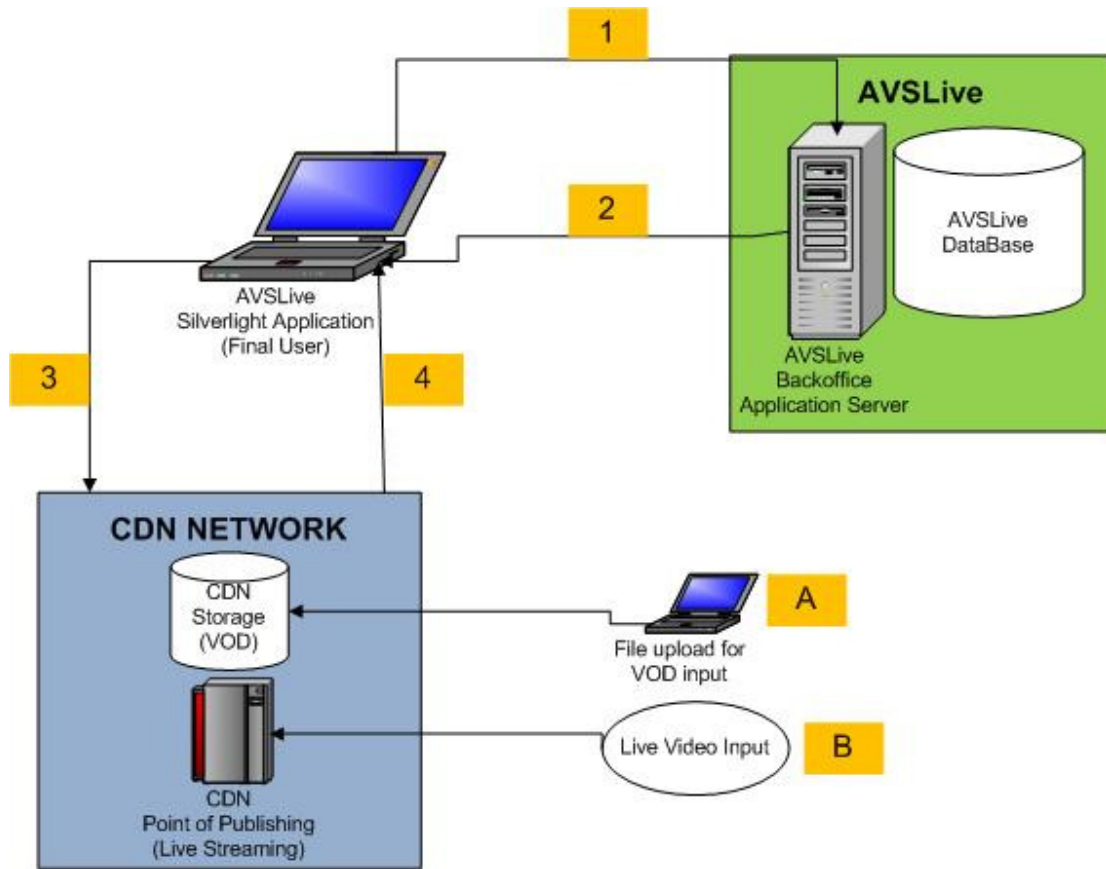
- HD delivery for main video stream
- Full screen display and screen resizing
- Videos and image/text overlay
- Slideshow for presentation (automatically or manually control)
- File download facility with selection menu
- Menu based PAD system which can provide: text and photos in biographies
- Links to other websites to maximise the user convenience
- Advertising: banners, sponsor logos, sms, or even insert your video advertising in SD stream
- Live interactive features including chat session, voting and emailing
- Free or password protected content access for PAYG or subscription delivery services
- 3 audio tracks for multiple language support

How AVS Live works

AVS Live uses Microsoft Silverlight, which delivers Compelling Cross-Platform Experiences that include High Definition video and sophisticated rich interactive applications on major browsers for the Mac, Windows and Linux.

AVS live uses a Content Delivery Network (CDN) to deliver the streaming content. The content to be delivered to a consumer is initiated through a web link embedded in the provider's web page. Considering the diagram below, as a prerequisite, the provider up-loads the files for a VOD session to the CDN storage using FTP (A) or initiates live streaming on a CDN publishing point (B). The process to active the content then involves the following steps:

1. The AVS Live Silverlight plugin embedded in the producer's web page calls the AVS Live Back Office (BO) system in order to retrieve the XML file that describes the content to be delivered.
2. The BO system responds by delivering the XML file to the AVS Live Silverlight application.
3. The AVS Live Silverlight application then calls the video streams defined in the XML file. Those URLs are located in the CDN Network (in the storage system for VOD files or in a publishing point for live streaming)
4. The CDN delivers the streams to the AVS Live Silverlight application.



From a consumers perspective this operation is very simple requiring only a 'single click' to access the content. Such simplicity is critical to consumer acceptance and a positive experience.

Download Silverlight <http://www.microsoft.com/silverlight/resources/install.aspx#sysreq>

The Back Office Operation

The process to develop a new AVS show, whether live or VOD is also straightforward and efficient. This allows producers to concentrate on the most important aspects of the content to be delivered. The producer accesses the AVS Live BO system via an internet connection. The AVS Live BO provides a User Interface which guides the producer through a series of pages which allow the definition of the session, e.g. how many cameras are used, the period time the live or VOD content will be made available, the setup of PAD such as biographies and slideshows, the URLs of the content and 'voila' a new session is produced. Using the information provided a new XML file is generated which immediately resides on the AVS Live server for use by consumers.

Access to the BO is managed by a hierarchical login/password system and is completely personalised (duration, validity in time, etc). The main levels of access are termed Broadcaster who has complete control, and Producer who can manipulate the content to be delivered. The pages of the live show in HTML are available for

customisation by the broadcaster/producer. Also, the number of consumers viewing the content can be managed using the (optional) DRM security features of AVS Live.

An AVS Live Concert Case <http://avssolutions.atdi.fr/crossroads/>

Streaming content specifications

The streaming transmission requirements are shown below.

Flow	Designation	Flow
V1	Flow principal Video HD	>= 1500 Kbps
V2	Flow Principal Video SD	>= 700 Kbps
R1	SlideShow	n.a
R2	Insert text+images	n.a
R3	Insert text	n.a
R4	Interactive functions	n.a
R5	Logo	n.a
T1	Video label 1	>= 40 Kbps
T2	Video label 2	>= 40 Kbps
T3	Video label 3	>= 40 Kbps
Vi1	Video insert 1	>= 150 Kbps
Vi2	Video insert 2	>= 150 Kbps
Vi3	Video insert 3	>= 150 Kbps
B1	Bar events horizontal real time (ticker)	n.a
B2	Cat???	n.a



AVS Metrics: Measure your audience in real-time.

Measuring an audience is a crucial strategy for all companies. With AVS Metrics, companies will determine who their target audiences are and what sources they have to use. Thus companies can follow more than ten different parameters which will allow them to analyse audiences' behaviour in real-time. Progressively, AVS Metrics can generate the exact figures of the contents consumption, and the key facts which will guide companies to their stakeholders wants and needs strategically.

For each video flow which is entrusted to us, AVS Metrics places the interface of advanced video metrics consultation: AVS Metrics is based on a powerful AD-server (Open X, resulting from the Open world Source).

Moreover users can have the information produced by the number of statistics processes, the time of multitude and the hardware configurations of the visitors.

Companies keep control of the communication with their customers through the accurate feedback available and will be equipped with the knowledge to determine the most optimised content, timing and duration to satisfy the audience precisely.

Main features

Functionalities of VOD

Dashboard - complete statistics by video streaming-comparative tables of the contents consumption

- Active video sessions
- Videos viewed at the time of webcasting
- Flux interns and externs
- Access referents, car-referents, partners, direct, search engines
- Checking Log in and out
- The number of videos
- Connections
- Completions
- Rate of completion
- Single visitors
- Number of returning visitors

- New visitors
- A number of sessions videos
- Total time of viewing
- Average time of viewing per visitor
- Average time of viewing by video
- Average of videos seen by visitor
- Average of videos seen by session
- Ratio of video reading 0% to 100%
- Geo-localisation, country, areas, cities
- Organizations
- Suppliers of access Internet
- Technical data of the visitors
- Poured plugiciels
- Poured fritterers
- Poured operating systems
- Colours of screens
- Resolutions of screens
- Witnesses
- Speed of connection
- Java
- CPU



AVS Ad-Serving: Advertise your products and services with the most effective audio-visual tools

To advertise video content is extremely expensive and if one does not use good development tools the investment can be wasted. With AVS AD-Serving, advertisers will be able to maximise commercial potential. The simultaneous production with the AVS Metrics, AVS AD-Serving will lead companies to the creation of audience-oriented commercials and distribute at the right time to be exposed to their target customers. Advertisers will be able to release 10", 15" or 20" advertisements in High Definition, full screen display, reaching 30 million audiences per day.

AVS AD-Serving combines an excellent opportunity with a perfect flexibility. It is distinguished as a unique product which the following points will demonstrate:

Remote loading is unnecessary, unlike many video gateways which impose the systematic remote loading of often heavy software. AVS AD-Serving is compatible with any operating system and navigator. Only the presence of plug-in Flash is needed (rate of penetration of 98% of the world data-processing).

AVS AD-Serving supports the following video formats: QuickTime H.264, MPEG 2, MPEG 4, Video Flash, DivX, and Windows Media. These guarantee the distribution of audio-video contents without risk of bad interpretation of format.

AVS AD-Serving proposes the following projections:

- Setting online and distributing instantly
- Streaming real time
- 5 times higher efficiency than the average video advertising
- Supporting multi formats, multi navigators, multi operating systems
- Double encoding (HD/SD) for a universal access
- Terabit Network with mirrors ensuring a permanent and world availability
- Videométrie in real time, statistics of consultation and completion by flow
- Lodging of flows on waiters' high availability.

AVS thus ensures the setting in line of video advertising of very High definition, thus making profit with its customer's last projections as regards to diffusion on line.