

# envivio®

## Integrated Video Solutions

Company Overview

Mindshare

Interactive MPEG-4 Webcast Presentation System for  
Education, Government and Enterprise Applications



Powering IP Video Convergence  
From Mobile to HD

**Frederic Blanc**  
Sales Engineer, Americas, Manager  
US Channel Sales Representative

# Overview

Envivio®

**Envivio** is the leading provider of the **MPEG-4 over IP** solutions required to deliver new **Mobile to HD** video services over any type of network to any type of media enabled device



**“Powering IP Video Convergence from Mobile to HD”**



Powering IP Video Convergence From Mobile to HD

Company Overview

# About Envivio

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- **Originated in 1996** as an R&D team developing the MPEG-4 standard
- **Established** in 2000
- **Experts in MPEG-4** technology
  - Pioneering contributor to the MPEG-4 standard
  - 3 ISO MPEG-4 group leaders and committee chairs
  - 19 MPEG-4 related patents
- **Focus on Video over IP Distribution** with over **200 customers deployed**
  - Mobile TV
  - WebTV
  - IPTV
  - Broadcast
  - Enterprise
- **150+ employees** worldwide
- Approximately \$30MM+ Capital Raised - major shareholders include:



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Company Overview

# Envivio's MPEG-4 Leadership

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## First with **Complete MPEG-4 Product Set**

Live and offline encoders, authoring tool, server and player

## First **Broadcaster** using **MPEG-4**

NDTV, MPEG-4 ASP encoders for News Contribution over satellite, 35 locations

## First **MPEG-4 IPTV**

Shanghai Media Group Deploys first IPTV in China

## **Multi Service Video Distribution Solution**

3G, DVB-H, WiMax, IPTV, Desktop TV

2001

2002

2003

2004

2005

2006

## First **Enterprise** using **MPEG-4 Interactivity**

Citigroup launched morning call service based on Mindshare system

## First **MPEG-4 Mobile Streaming**

Launched mobile encoder product range with Real Networks

## First **H.264/AVC Mobile Broadcast**

MBCO launches first commercial MPEG-4 Broadcast Mobile In Japan

## **Over 2,000 Channels** deployed

Leader in Mobile with over 1,000 channels deployed, 30+ DVB-H, 80+3G and 15+ IPTV



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Company Overview

# Envivio Is the Most Deployed MPEG-4 Solution Today

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## IPTV



## Mobile TV



## Enterprise Streaming



## Broadcast Transport



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# MPEG-4 Encoding Systems from Mobile to HD

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The most advanced MPEG-4 encoding systems targeted at specific applications



**4Caster M4** Mobile Encoder: 3G



**4Caster M2** Mobile Encoder: DVB-H



**Mindshare** Rich Media Presentation Encoder



**4Caster C4** MPEG4 AVC SD IP ingest Encoder



**4Caster B30** MPEG4 AVC SD Encoder



**4Caster HD3** MPEG4 AVC HD Encoder



- High Quality video from mobile to HD
- Advanced IP and MPEG-2 TS support
- Network management, N+M redundancy
- Interoperability with all the set top boxes and mobile devices
- Well over 2,000 deployed



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Mindshare

Interactive MPEG-4 Webcast Presentation System for  
Enterprise, Government and Education Applications



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# Mindshare Composer

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## Single MPEG-4 appliance with:

- **Hardware** in rack and lite versions
- **Input 1:** VGA input from laptop
- **Input 2:** Video/Audio input from Camera
- **Input 3:** Video Conferencing Input
- **Output:** Ethernet (MPEG-4 IP multicast and unicast) to thousands of viewers
- **Playback** on PC, Mac
- **Available in** English, Japanese, Chinese (simplified), Korean
- **Integrated** portal with Jubilant



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# Mindshare - Advantages

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Unique architecture overcomes all usual problems of HTML systems:

- ✓ **Ultra Low latency** live < 1 sec (proprietary video > 10 sec)
- ✓ **Anything** displayed on the computer screen is **captured**, native resolution up to 1600x1200 at 5-20fps
- ✓ **Share** and record **white board**, **Mac** screen, **PC** screen, visualizer or high resolution medical signal
- ✓ Presentation immediately available as a **single .mp4 file**
- ✓ **Perfect sync** between audio, video and screen capture
- ✓ Fully **scalable** to thousands of viewers via multicast
- ✓ **Enhanced user experience:** MPEG-4 interactivity
- ✓ Same file plays on **multiple platforms, no transcodings:** PC, Mac
- ✓ **Easy!** No need for video production or IT knowledge



# Use Cases



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- Current
  - On Demand university courses
  - Global corporate communication
  - Employee training
  - Usability testing

- Emerging
  - Telemedicine
  - Video Conferencing  
archiving/broadcast



# Reference Customers

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## Government/Military:

- SAP, USA
- Pentagon
- Sandia National Labs, NM
- US Department of State
- JWAC – Joint Warfare Analysis Center
- European Community

## Education:

- University of California Davis
- Cornell University Weill Medical College, USA
- University of Texas at Austin, USA
- University of Georgia, USA
- University of Maryland, USA
- Riverside Community College, USA College of North Atlantic, Qatar
- King Saud University, Saudi Arabia
- Oslo University, Norway
- Tokyo University, Japan
- Seoul University, Korea

## Corporate:

- Citigroup, USA
- SAP, USA
- Adobe, USA
- Oracle, USA
- Cisco, USA

## Medical/Health:

- Abbott Labs, USA
- Ministry of Health in Malaysia
- King Fahd Specialist Hospital, Saudi Arabia

## Other:

- Bell Canada
- NTT-NE



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# Mindshare Presentation System

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## Components

- **Mindshare Composer**, a recording appliance located in each meeting room, classroom or presentation area.



- **4Sight Server**, the central MPEG-4 streaming server, gathering all live and recorded content from the Mindshare Composers



- **EnvivioTV plug-in and Java Player**, the MPEG-4 BIFS layer that enables PCs, Mac, with the playback of multi-object MPEG-4 content



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# Mindshare Presentation System

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## General Benefits

- **Easy to use:** you don't have to change your behavior and adapt to the technology, keep presenting as you were before
- **You can capture and synchronize anything** with no pre-authoring, not only PowerPoint but any application running on PC, Mac, or content from a white board, an endoscope, a overhead camera, and anything you can plug into its VGA input port
- **Screen capture Quality identical to original:** Pixel Accurate native capture
- **Engaging viewer experience:** closer to a real presentation than static HTML
- **Save time:** support playback on any platform, PC, Mac
- **Scalability** in terms of number of viewers and Easy Distribution (single files)
- **Allows for audience to presenter interactions:** low latency allows for interactions with the presenter

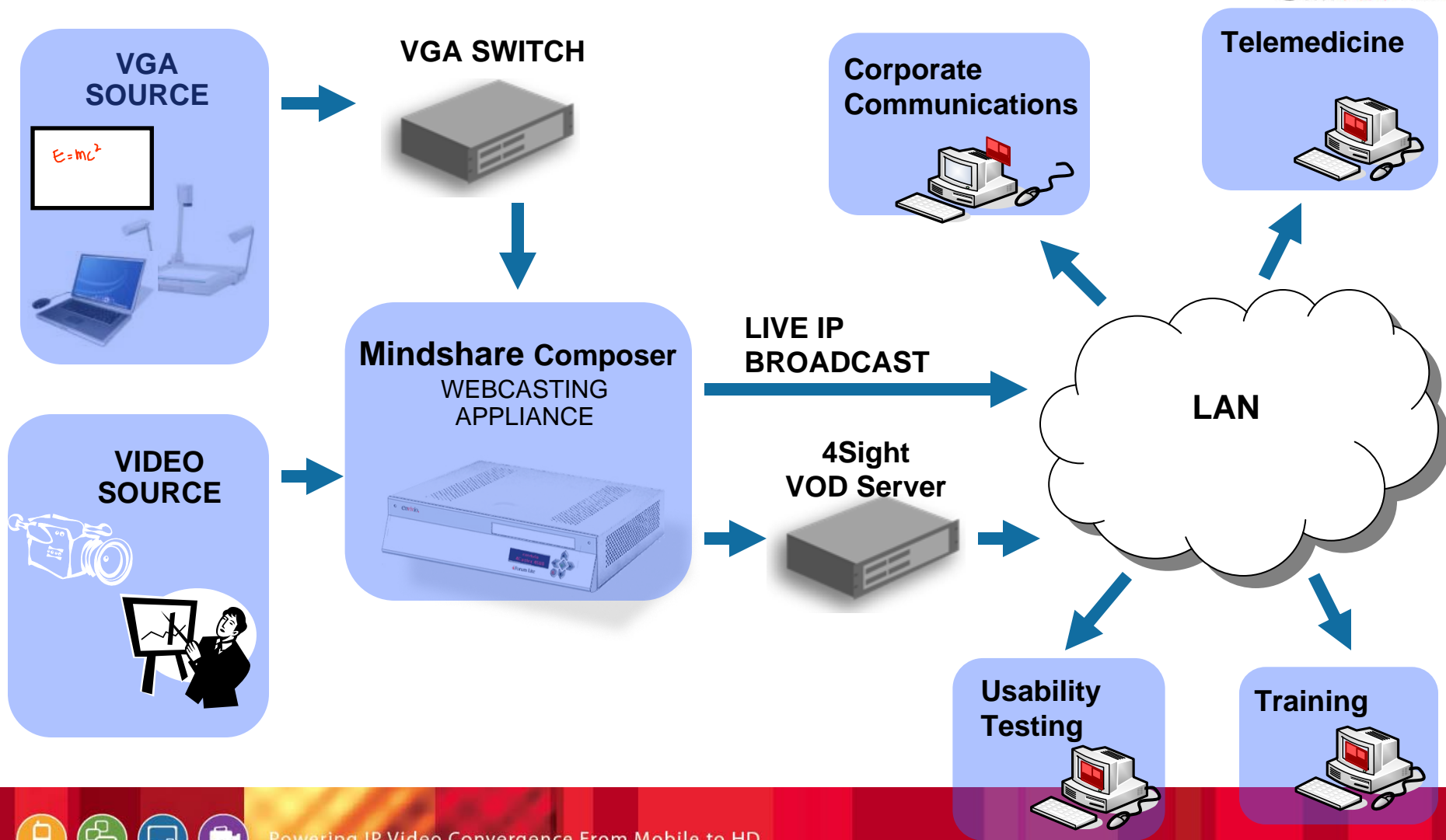


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# Use case : E-learning and training

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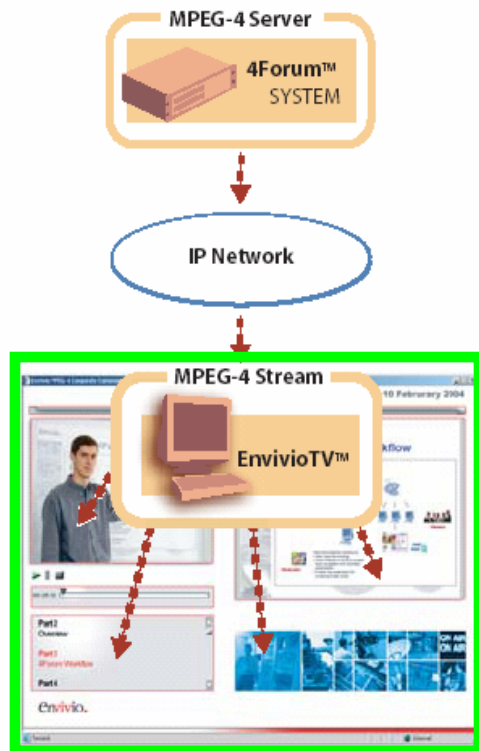


# Mindshare – Innovative Approach

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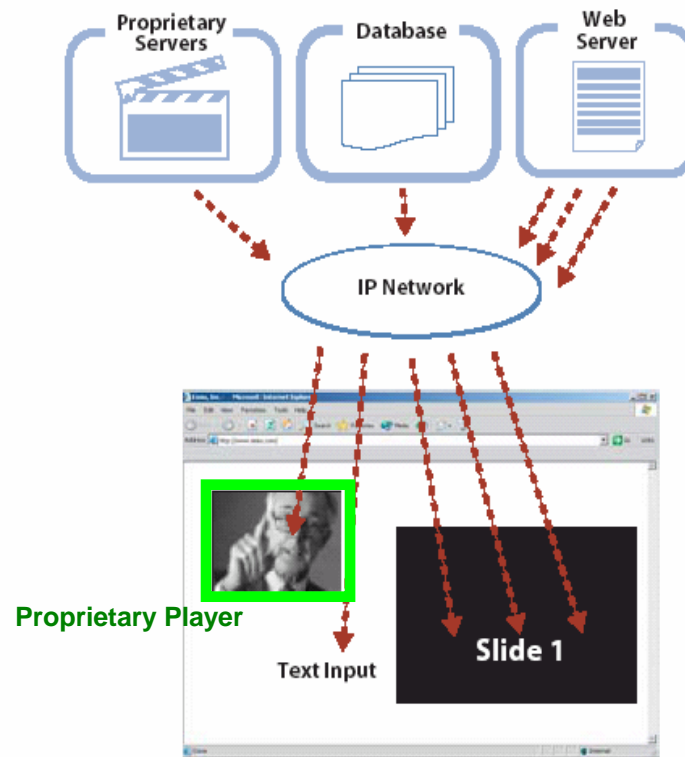
4Forum – Multi-Object MPEG-4 Webcasting vs

Traditional – Hybrid HTML Webcasting



MPEG-4 Player

- Perfect synchronization
- Seamless scalability
- Low latency (<1 second)
- Simple architecture



- Synchronization problems
- Limited scalability
- Long latency (>10 seconds)
- Complex architecture



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# Mindshare vs. HTML

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<u>Standard</u> Technology	X	Proprietary
<u>Latest</u> Technology	X	Old
<u>Low Latency</u> <1 sec.	X	High Latency >10 sec.
<u>Video</u> Encoding	X	Slide Show
<u>Single</u> File	X	Multiple Files
Highly <u>Scalable</u>	X	Expensive & Clumsy
<u>Multiple</u> Players Support	X	Limited
Server <u>Included</u>	X	Server not Included



# Mindshare – Features

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	Mindshare Composer - Rack	Mindshare Composer - Lite
Storage	120 GB (upgradeable up to 730GB)	40 GB, fixed
Drive Configuration	RAID 5, SCSI	No raid, ATA
Max input VGA resolution	1600x1200 / up to 30fps	1024x768 / up to 5fps
Max input Video resolution	640x480	320x240
Concurrent streams	100+	5 max
Scalable # concurrent streams	Yes (4Sight servers or Cisco CDN)	Yes (4Sight servers or Cisco CDN)
Live production	Yes	Yes
Streaming Supported	Yes	Yes
On-demand file production	Yes	Yes
Streaming Modes	Multicast and Unicast	Multicast and Unicast
ACNS support	Yes	Yes
Form Factor	2RU Rack Mount	Small portable appliance
Rackable	Yes	No
LCD control panel	No	Yes
Web Admin interface	Yes	Yes
English, Japanese, Chinese, Korean language support	Yes	Yes
# Licenses of EnvivioTV included	100 ETV plug-in and 1000 Java Players	50 ETV plug-in and 500 Java Players



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# Mindshare Solution – Q&A

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- Can I share a white board and more generally what devices can I record with Mindshare?
  - Yes, the second input of the Mindshare is VGA. Whatever you plug will be recorded including a Mac, a SmartBoard or Mimio, a PC, a visualizer, an endoscope, etc.
  - You are not limited to PowerPoint, not even limited to computers...
- On what platform can I play Mindshare content?
  - The same mp4 file will play
    - On a PC: in QuickTime, Real, Windows Media or Internet Explorer ActiveX, Java Player
    - On a Mac: in QuickTime, Java Player
  - No Transcoding is needed!!
- Do I need to encode several times to play on different players, on PCs, Mac?
  - No, the same file plays on all platforms







# Mindshare Solution – Q&A

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- Do I need anything else than Mindshare to start streaming and recording?
  - Mindshare is all you need to start recording, broadcasting and playing presentations
  - You can start small and scale later by adding more serving capability with 4Sight and content management system with Jubilant
- Can I customize the viewer's experience -change logos, text, and interactivity?
  - Yes, with the 4Mation template authoring tool, one can create new design templates for Mindshare. You can also make a request to the Envivio Professional Services team.





# Mindshare Solution – Q&A

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- How can I control Mindshare?

The Mindshare can be controlled by several means:

- Mindshare Web based interface
- Front panel and LCD
- Crestron or AMX (modules available with Jubilant)
- Third party application (using API)

- Is Mindshare scalable to a large number of simultaneous viewers and how?

- Yes, Mindshare can scale to as many viewers as wanted whether it is live or On-Demand:

- Multicast: naturally
- To scale in Unicast: simple addition of 4Sight Streaming server
- For scalability on mixed and dispersed networks or the internet: use of CDN equipment (Cisco) or Host Services



# 4Sight™ Video Streaming Server

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The 4Sight™ video streaming server from Envivio provides optimized MPEG-4 and H.264 streaming performance in small-, medium-, and large-scale enterprise, broadband, and broadcast deployments. It has been designed to meet the needs of all professional video distribution applications.



## Features

- Stream MPEG-4 and H.264 content
- Ability to stream MPEG-4 Systems content (BIFS)
- Playlist management
- Network selection on output relay
- Real-time stream switcher
- 'Trick Play' support
- Error resilience
- Remote administration and monitoring
- Load balancing
- Session Announcement Protocol (SAP) support
- Customizable authorization
- Linux Redhat 8.0 operating system
- Software Version Available

## Benefits

- Deliver top-quality video over existing IP networks
- Increase audience reach using scalable multi-server configurations
- Distribute standard MPEG-4 content to use on any client platform – PC, set-top box, and wireless device
- Reduce bandwidth costs by streaming efficient MPEG-4 files



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- Pentagon
- Sandia National Labs, NM
- US Department of State
- JWAC – Joint Warfare Analysis Center
- European Community

## Education:

- University of California Davis
- Cornell University Weill Medical College, USA
- University of Texas at Austin, USA
- University of Georgia, USA
- University of Maryland, USA
- Riverside Community College, USA College of North Atlantic, Qatar
- King Saud University, Saudi Arabia
- Oslo University, Norway
- Tokyo University, Japan
- Seoul University, Korea

## Corporate:

- Citigroup, USA
- SAP, USA
- Adobe, USA
- Oracle, USA
- Cisco, USA

## Medical/Health:

- Abbott Labs, USA
- Ministry of Health in Malaysia
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## Other:

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