

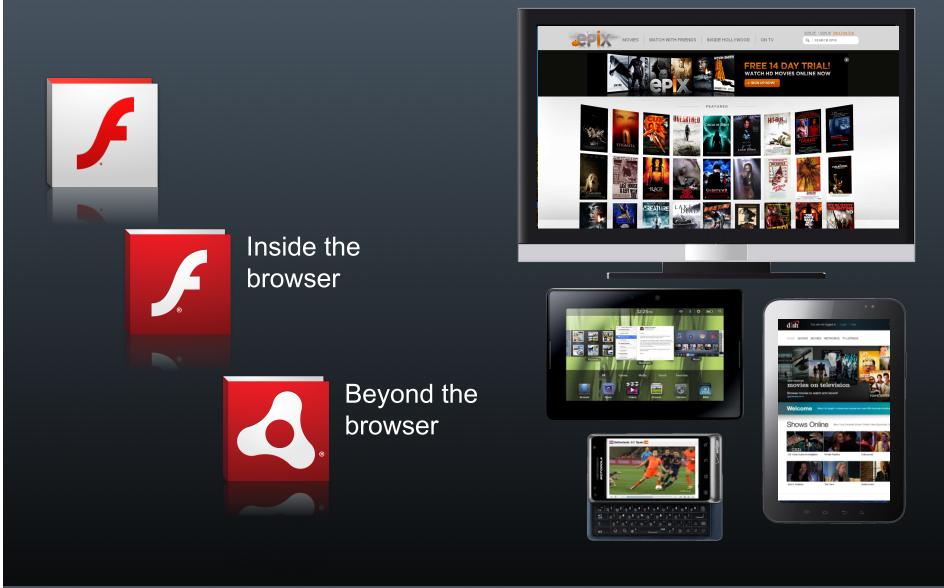
Streaming Media West 2010

Jennifer Taylor| Senior Director Product Management Flash Platform



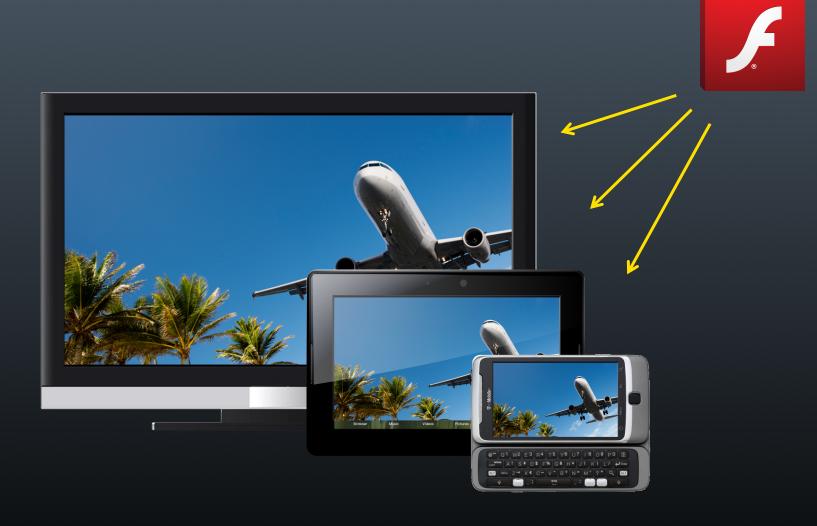
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Video Powered by the Flash Platform





More devices, more fragmentation





Adobe Flash Platform

The leading platform for creating expressive applications, content, and video that run consistently across operating systems and devices



Adobe Excels in Video Leadership

- The top 25 video properties in the U.S. today use Flash
- Largest events streamed using Adobe Flash Media Server
- Flash Media Server is used to provide multi-user audio and video experiences





Flash Platform: Sustained Leadership and Ubiquity

More than 3 Million Flash Developers*



Of Alexa top 100 sites use Flash



Web games use Flash



of the top video properties in the U.S. use Flash



PCs worldwide have installed Flash Player 95% of top 20 phone OEMS committed to delivering Flash

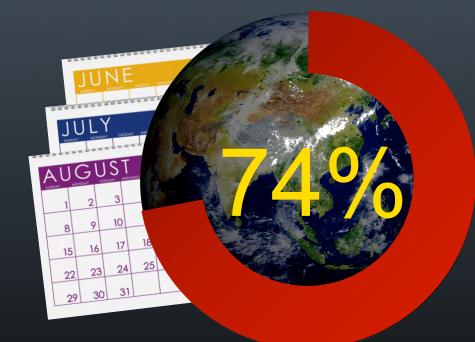
* Based on Evans Data April 2010

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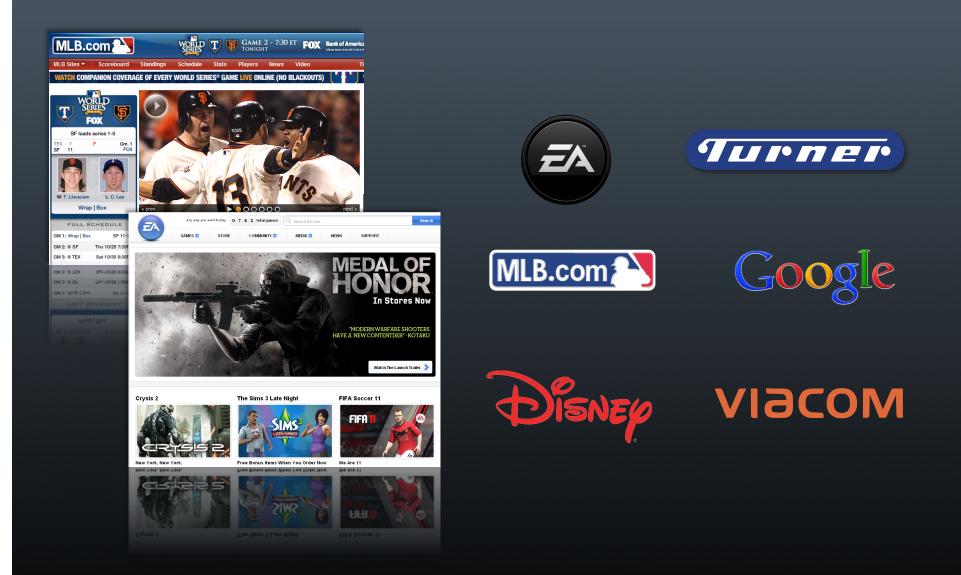
Flash Player 10.1 Penetration in 3 months – Fastest in the World







Media and Entertainment Companies Embrace Flash Technology





Play Everywhere



Jeu partout Spel overal どこでも演劇 Juego por todas partes Spiel überall 어디에나 놀이 Gioco dappertutto



Open Screen Project has grown to over 70 members



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open screen project

Don't Change A Thing!

Leverage the same media publishing as Desktop delivery



- Consistent Codecs
- Consistent Protection
- Consistent Protocols
- Consistent Experience



Consistent Video Experiences

- Live, VOD,
- H.264, AAC
- P2P, HTTP, RTMP

Dynamic Streaming

- Adaptive Bitrate
- Enhanced Seek, DVR

Protected delivery

Encrypted protocol, SWF V

Video Performance

- Mobile Hardware Acceleration
- Optimized Encoding

Powerful Media Framework





webOS

symbian





Dynamic Streaming on Mobile



Adaptive Bitrate technology

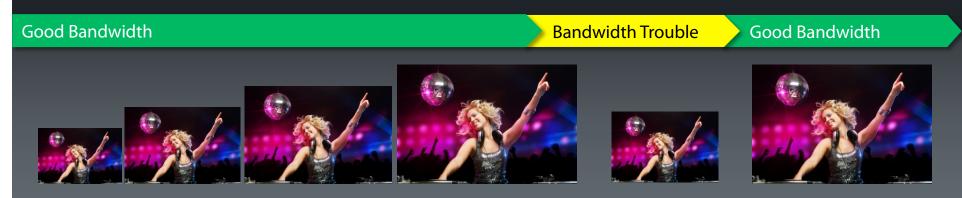
- RTMP + HTTP Protocols
- CPU + Bandwidth monitoring

Recovery during network outage

Smart buffering reduces disruptions

Local buffer for dynamic seeking

- Seek back + forward
- Reduced network calls
- Pause and Resume quickly
- Frame stepping + Speed change





Protected Delivery For Mobile

Monetize Video

- Pay per view
- Advertising

RTMPe Encryption

- Real Time encryption for Live + VOD
- No DRM workflow
- Used today by all major publishers

SWF Verification

- Protect the video player
- Protect access
- Used today by all major publishers

RTMFP (Peer Assisted Networking)

Real Time encryption





ADOBE[®] FLASH[®] PLATFORM



Mobile Video Performance



- Device-driven hardware acceleration
- Battery optimization
- Encoding guidelines



DEMO





Flash Media Server Roadmap SneakPeak



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The Problem : 1 stream = 7 files

Mobile and Tablet

Desktop + TV (SD)

Desktop + TV (HD)







The Solution: 7 streams = 1 file

Sieskeosouide (SD) Master File or Stream Desktop + TV (HD)







Adobe Media Encoder CS5

| Export Settings | | |
|---------------------------|---|---|
| Source Output | ·= | |
| 【 Left: 0 Top: 0 Right: 0 | Bottom: 0 None 💌 🚰 | |
| | Format: | FLV F4V 🔻 |
| | Custom | PC & TV, HD, High, 16x9 🔻 🖀 📾 |
| | | |
| | PC & TV, HD, High, 16x9 | |
| | PC & TV, HD, Low, 16x9 | 00046.f4v |
| | PC & TV, SD, High, 16x9 | Export Audio Open in Device Central |
| | PC & TV, SD, Med, 16x9 | |
| | Phone & Tablet, 3G, 16x9 | 0, Same as source fps, De-interlaced ersion 2, 64 kbps, 44.1 kHz, Stereo |
| | Phone & Tablet, Low, 16x9 | get 3.44 Mbps |
| • | Phone & Tablet, WiFi, 16x9 | 146.MTS |
| 00;00;00;00 🔺 | F4V - Match Source Attributes (High Quality) | 80 (1.3333), 25.00 fps, Upper, 00;27;05;24 z, Stereo |
| · 🖗 | F4V - Match Source Attributes (Medium Quality) | |
| ∠ Source Range: | FLV - Match Source Attributes (High Quality) | deo Audio FTP |
| | FLV - Match Source Attributes (Medium Quality) | |
| + - 🖿 🖿 | F4V - 1080p Source, Quarter Size (Flash 9.0.r115 and Higher) | |
| Cue Point Name | F4V - 720p Source, Half Size (Flash 9.0.r115 and Higher) | |
| | F4V - HD 1080p (Flash 9.0.r115 and Higher) | zontal and Vertical |
| | F4V - HD 720p (Flash 9.0.r115 and Higher) | |
| | F4V - Web Large, NTSC Source (Flash 9.0.r115 and Higher) | |
| ∢ | F4V - Web Large, PAL Source (Flash 9.0.r115 and Higher) | |
| + - | F4V - Web Large, Widescreen Source (Flash 9.0.r115 and Higher) | |
| Parameter Names for: | F4V - Web Medium (Flash 9.0.r115 and Higher) | Quality 1 |
| | F4V - Web Medium, Widescreen Source (Flash 9.0.r115 and Higher) | i i |
| | FLV - 1080p Source, Quarter Size (Flash 8 and Higher) | 4B |
| | FLV - 720p Source, Half Size (Flash 8 and Higher) | |
| • | FLV - Web Large, NTSC Source (Flash 8 and Higher) | 30. —— |
| | | — 1000. A |
| | | |
| | | |

- 7 new encoding Profiles
- For Tablet, Phone, Desktop and TV
- Full Adaptive Bitrate for un-interrupted viewing



Adobe Flash Media Family of Products Driving consistent media delivery for all Screens



