

Fun with Flash Media Server

Lisa Larson~Kelley

www.flashconnections.com



What is FMS?

RTMP

(Real Time Messaging Protocol)

» Video «

» Audio «

» Data «

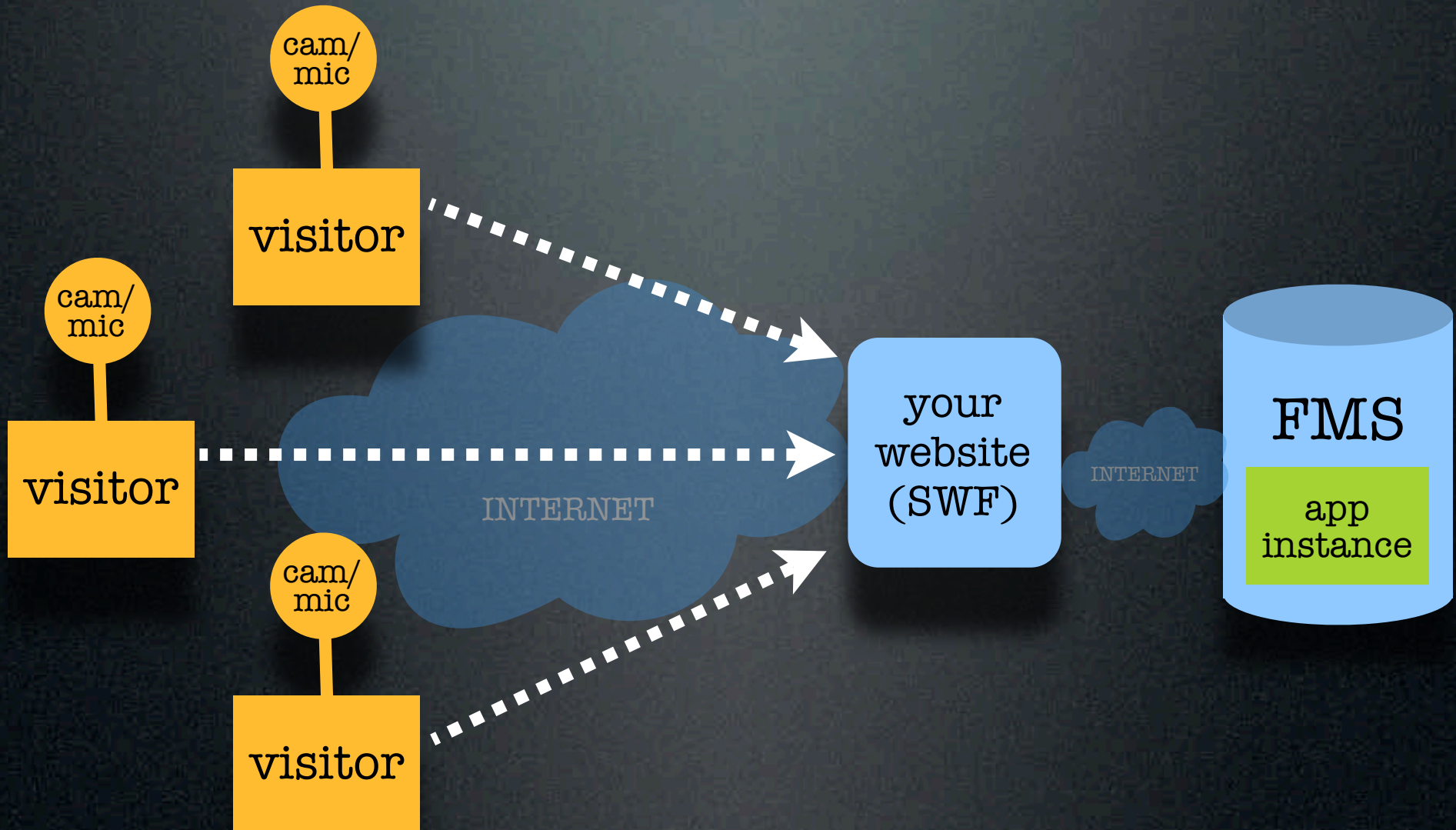
Flash Media Server



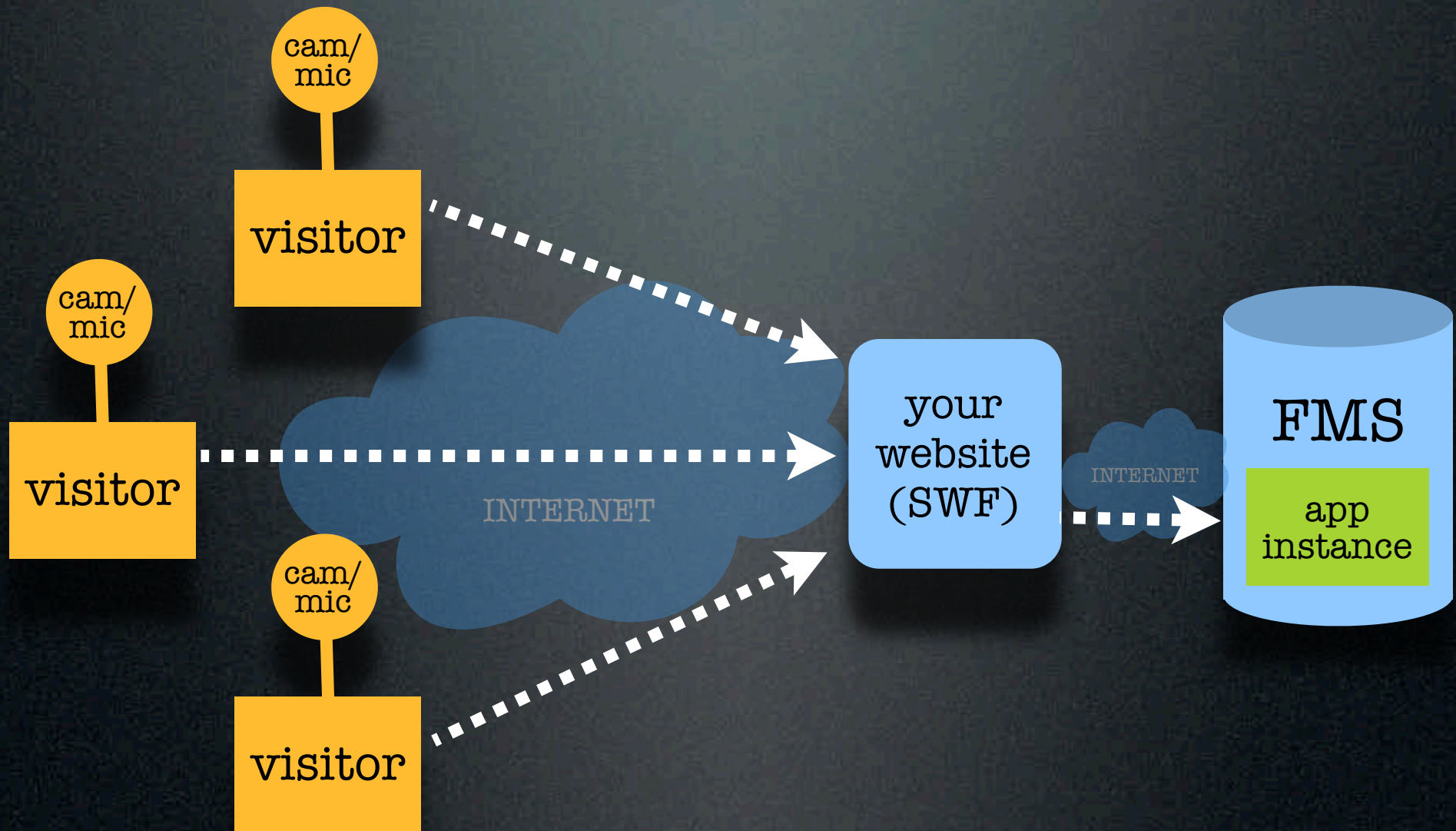
Flash Media Server



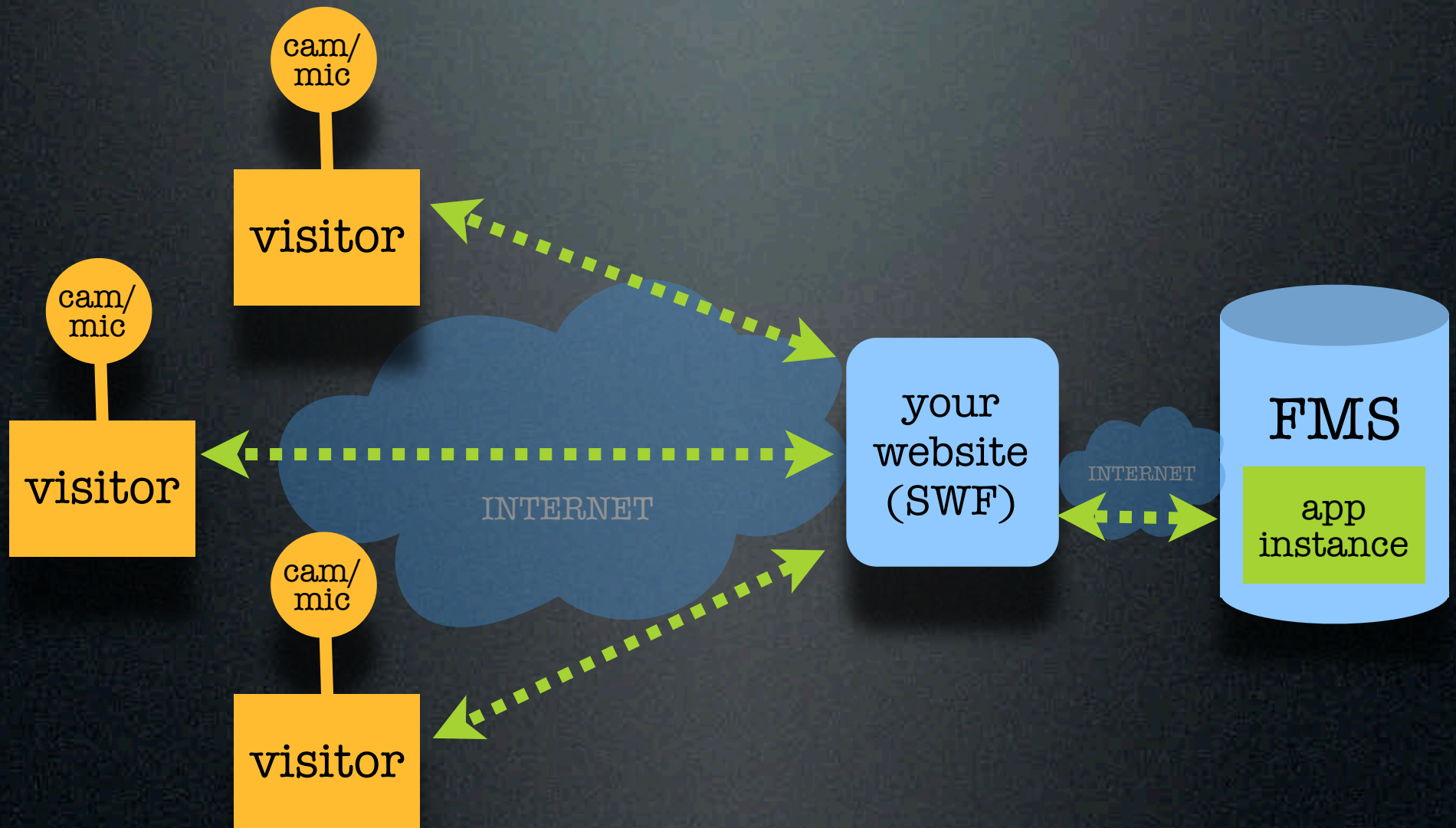
Flash Media Server



Flash Media Server

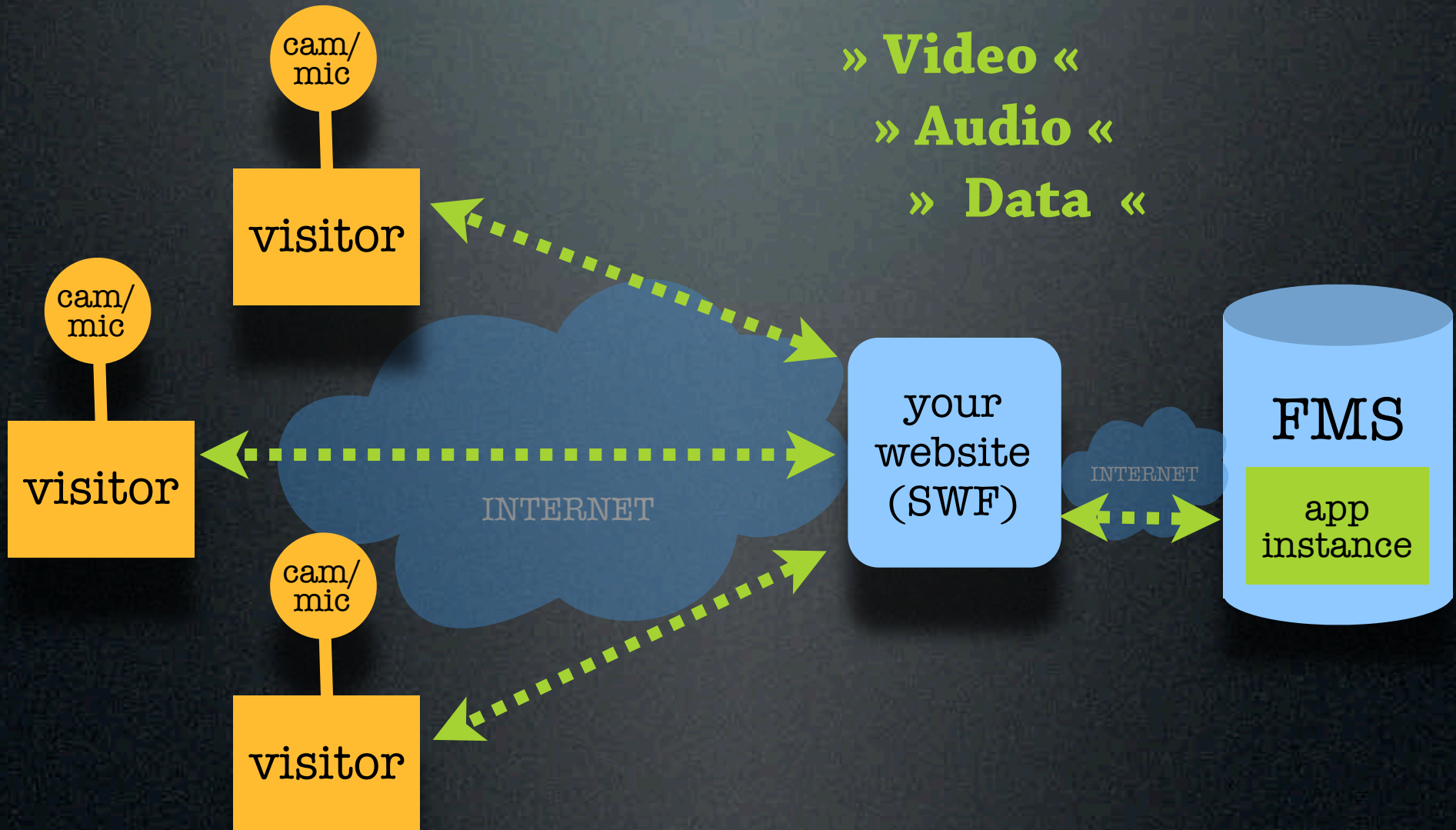


Flash Media Server



Flash Media Server

» Video «
» Audio «
» Data «



Basic elements of FMS

- Streams [video, audio]
- Remote shared objects [data]
 - Storage and retrieval
 - Real-time sharing

Your tools: The Media Classes

Client side

- ▶ Camera
- ▶ Microphone
- ▶ SharedObject
- ▶ NetConnection
- ▶ NetStream
- ▶ Video

Your tools:

The Media Classes

Server side

- ▶ Application
- ▶ Client
- ▶ File
- ▶ LoadVars
- ▶ NetConnection
- ▶ SharedObject
- ▶ Stream
- ▶ WebService
- ▶ XML
- ▶ XMLSocket

Scripting for FMS

Scripting for FMS

| | | | |
|--|------------|------------|------------|
| | AS1 | AS2 | AS3 |
|--|------------|------------|------------|

Scripting for FMS

| | AS1 | AS2 | AS3 |
|--------------------|------------|------------|------------|
| client-side | X | X | X |

Scripting for FMS

| | AS1 | AS2 | AS3 |
|-------------|------------|------------|------------|
| client-side | X | X | X |
| server-side | X | | |

FMS 3 !!!

FMS 3 !!!

FMS3

- ▶ H.264 streaming support
- ▶ Improved live streaming (almost doubled, more streams, more users per server)
- ▶ New server-side plugin architecture (C++)
- ▶ Improved security
- ▶ Mobile streaming to Flash Lite 3 (Q4 07?)
- ▶ Integration with AMP
- ▶ and more?!

So, what's so *fun*
about FMS?!

★ Video on demand

★ Multiplayer games

★ Streaming with intelligent bw & version detection

★ Videoconferencing

★ Video editing

★ Video blogging

★ Collaborative – whiteboard, chat, data sharing

★ Live event broadcasts

Sweet FMS Apps

eyejot

<http://www.eyejot.com>

The screenshot shows a web browser window titled "Eyejot :: Messages" with the URL "http://www.eyejot.com/messages". The page features the Eyejot logo (a blue eye icon) and the tagline "video messaging in a blink". A navigation menu includes "Messages", "Friends", "Services", "Profile", "Help", and "Logout".

The main content area is divided into two sections:

- Inbox:** A table with columns "From", "Date", and "Details". It lists three messages:

| From | Date | Details |
|------|------------------|---|
| | Today at 0:48 PM | Duration: 0:06 Subject: FMS is FUN! |
| | Today at 0:18 PM | Duration: 0:03 Subject: Testing Eyejot |
| | Today at 0:14 PM | Duration: 0:12 Subject: Welcome to Eyejot! |

Message Viewer: A video player showing a woman speaking. Below the video are "Play" and "Stop" buttons. Metadata for the selected message is displayed:

- Date Created: Today at 0:48 PM
- Message Duration: 0:06
- Subject: FMS is FUN!

Additional buttons for "Reply" and "Delete" are located at the bottom of the message viewer. A "Refresh" button is positioned below the inbox table.

Sweet FMS Apps

userplane

<http://www.userplane.com>

http://www.userplane.com - Userplane demo chat

Userplane Webchat Help

Rooms

▼ Waiting Room 11 users

| OUT | ME | NAME | TIME IN |
|-----|----|----------------------|---------|
| | | lisamarienyc (guest) | 0:00 |
| | | hotcaltlyn (guest) | 0:01 |
| | | coskun21 (guest) | 0:09 |
| | | kittyllille | 0:11 |
| | | nillygirl (guest) | 0:15 |
| | | jonyy (guest) | 0:15 |
| | | NudeM (guest) | 0:33 |
| | | (guest) | 1:06 |
| | | johnny (guest) | 1:12 |
| | | Tigerrr (guest) | 2:03 |
| | | calin.cam (guest) | 15:40 |

Waiting Room Room Phone Chat: US (218) 486-4528 x 132553

6:56 PM: **kittyllille: love it enyway**
6:56 PM: **NudeM (guest): No u won't**
***** at 6:56 PM lance123 (guest) left the room
6:56 PM: **kittyllille: I make it BIG**
***** at 6:56 PM hotcaltlyn (guest) joined the room
6:56 PM: **NudeM (guest): You can't**
6:56 PM: **kittyllille: I will kiss it**
6:57 PM: **NudeM (guest): Hmmm**
***** at 6:57 PM lisamarienyc (guest) joined the room
***** The messages above were sent before you arrived.
***** To send a private message, type: <nameOfUser> your message here
kittyllille: oohhh
kittyllille: you are thinking
johnny (guest): vill du ha kuk,gå in på svenska sidan
NudeM (guest): I can't think... sorry

style type here ... send

Detail Pane

This is the Detail Pane. Click on users above for expanded information, audio/video, and more ...

Me A/V Dock

View multiple A/V windows by selecting a user from your room and clicking "Dock" in the Detail Pane.

Settings

▶ New! Create Profile Login About Userplane... TOS

Read cache.static.userplane.com

Userplane | Webmessenger: Instant Messaging Software and Webcam Messaging, Video Chat Software

http://www.userplane.com/webmessenger/

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Services Company Support Contact Instant Community

Userplane Userlist

- Userplaner Here I'm here!
- AnnaBanana IM me to report abuse
- Derek AFK... Please call call
- Diane
- GabeAtUserplane Working hard or hardly wor...
- Janet I'm here!
- Jess01 I'm here!
- Jeff In a meeting... Leave a message
- Joel (Guest) I'm here
- John (Guest) Lakers lol Can't go... IM me!
- Micha (Guest) Lunch
- Michelle (Guest) I'm Away!
- Mika (Guest) Working... SBD
- Nate (Guest) I'm Away!
- Ken (Guest)
- New Guest

AD SPACE

Userplaner

Company: Userplane
Title: Marketing Director
Email: sunny@userplane.com
Location: Los Angeles

Userplaner: How was your weekend?
Derek: Great! Went to the beach—met up with friends. Yours?
Userplaner: I had a good weekend too! What are you doing for lunch?
Nothing planned. What do you feel like having?

AD SPACE

360-Degree Userplane Webmessenger software. The freshest solution for your site

Beyond instant messaging, Userplane's Presence system—a leverage online user interface of Presence—leverage web-based communication that

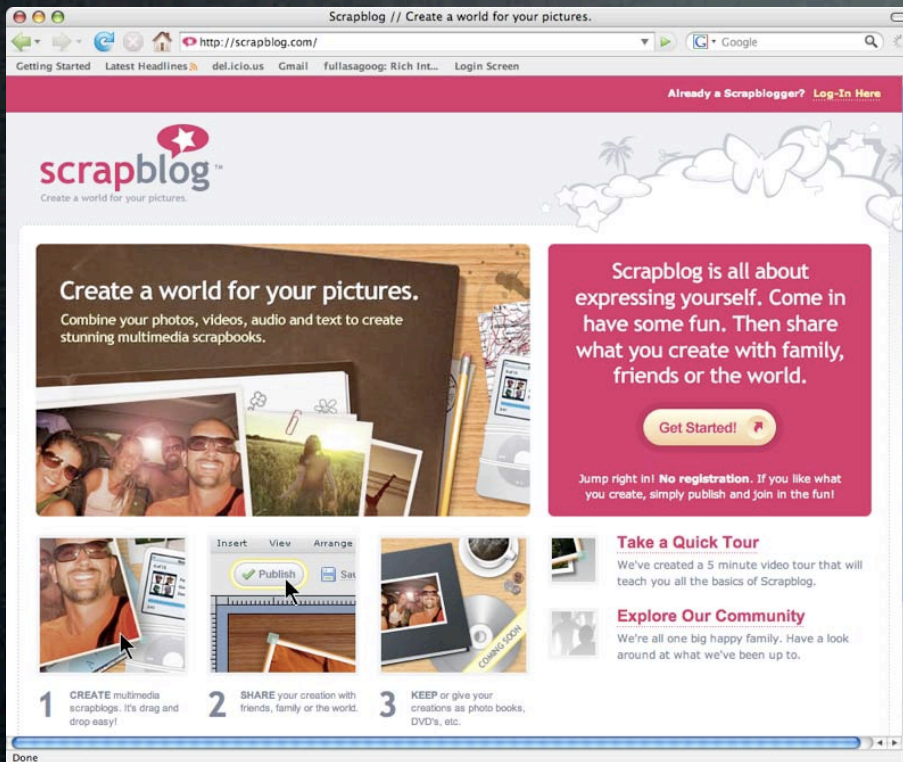
From startups to corporate sites, any website can implement Webmessenger 2 with zero fees. Userplane provides free, ad-supported packages for both "Integrated" and "Instant" hosting solutions. New to Webmessenger 2 is Userplane Money—an unprecedented

Done

Sweet FMS Apps

ScrapBlog

<http://www.scrapblog.com>



Scrapblog // Create a world for your pictures.

http://scrapblog.com/

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Already a Scraplogger? [Log-In Here](#)

scrapblog™
Create a world for your pictures.

Create a world for your pictures.
Combine your photos, videos, audio and text to create stunning multimedia scrapbooks.

Scrapblog is all about expressing yourself. Come in have some fun. Then share what you create with family, friends or the world.

[Get Started!](#)

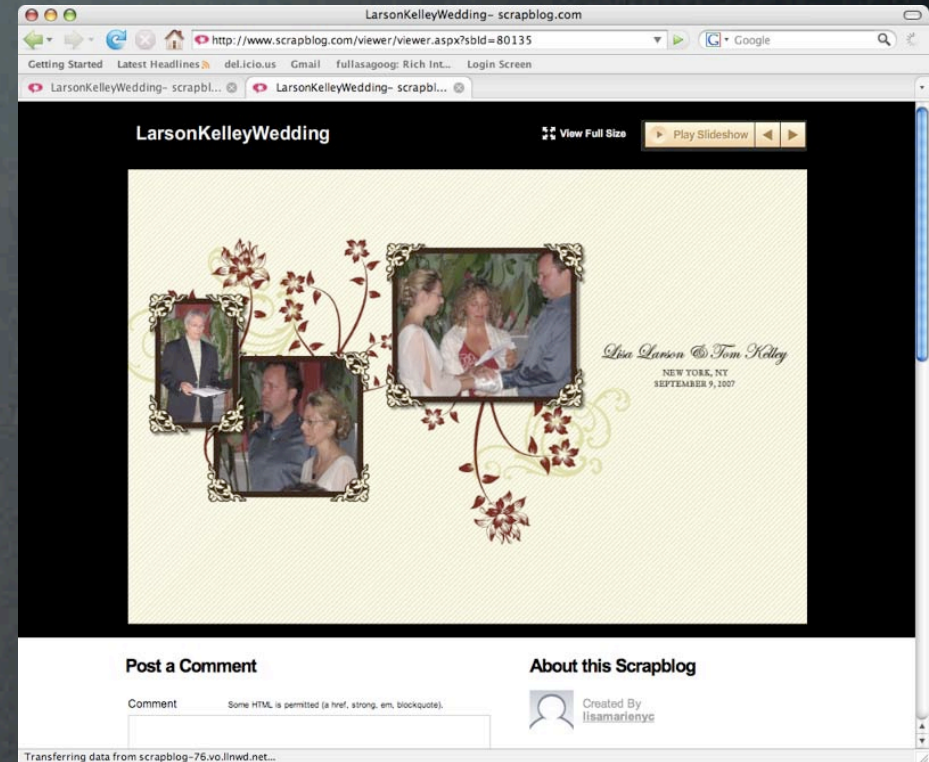
Jump right in! **No registration.** If you like what you create, simply publish and join in the fun!

Take a Quick Tour
We've created a 5 minute video tour that will teach you all the basics of Scrapblog.

Explore Our Community
We're all one big happy family. Have a look around at what we've been up to.

- 1 CREATE** multimedia scrapblogs. It's drag and drop easy!
- 2 SHARE** your creation with friends, family or the world.
- 3 KEEP** or give your creations as photo books, DVD's, etc.

Done



LarsonKelleyWedding - scrapblog.com

http://www.scrapblog.com/viewer/viewer.aspx?sbid=80135

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LarsonKelleyWedding- scrapbl... LarsonKelleyWedding- scrapbl...

LarsonKelleyWedding [View Full Size](#) [Play Slideshow](#)

Lisa Larson & Tom Kelley
NEW YORK, NY
SEPTEMBER 9, 2007

Post a Comment

Comment Some HTML is permitted (a href, strong, em, blockquote).

About this Scrapblog

Created By [lisamarinyx](#)

Transferring data from scrapblog-76.vo.llnwd.net...

Sweet FMS Apps

Huddle

<http://www.livehuddle.com>

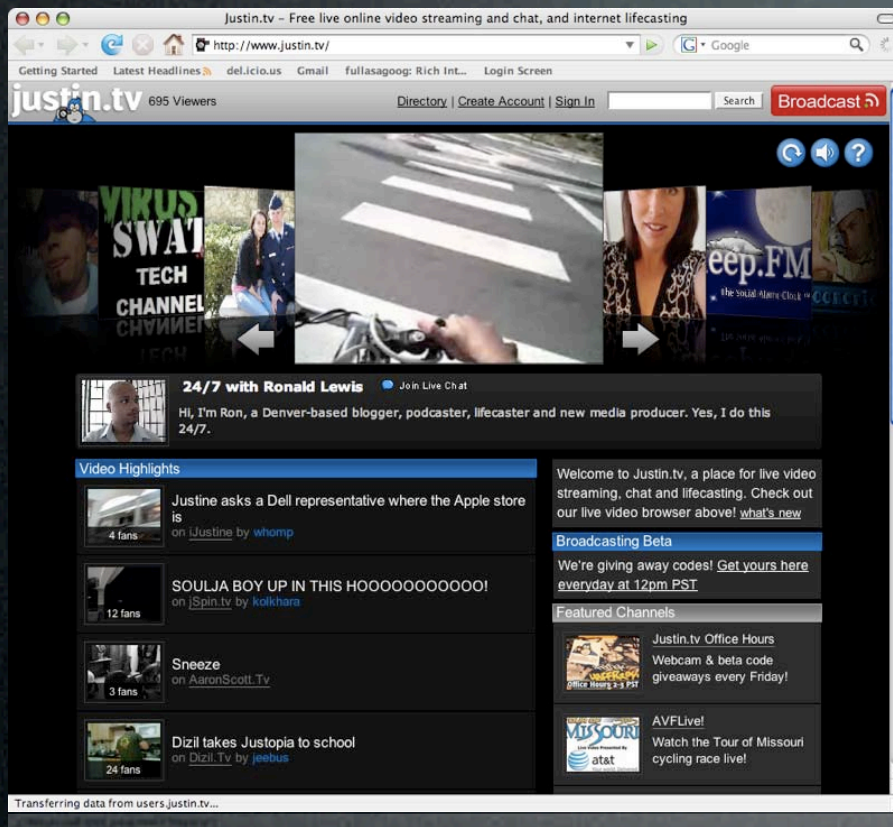
The screenshot shows the Huddle Webinar interface. At the top, it says "Huddle Webinar" and "ELI | KIRK". The main area is divided into three sections: "VIDEO" on the left showing a presenter, "CHAT" below it with a message from "Jake Hilton (presenter)" asking "How can Huddle help me train my company at a fraction of the cost?", and "PRESENTATION" on the right showing a slide with the Huddle logo and the text "On-line meetings, live and on demand. www.livehuddle.com". At the bottom, there is a "Send" button and a "Time: 5:34" indicator.

The screenshot shows the Huddle Webinar interface with a "POD MANAGER" section at the bottom. The "PEOPLE" section lists "Jake Hilton (presenter)" and "Jake Hilton". The "CHAT" section shows the same message as the previous screenshot. The "PRESENTATION" section shows the same slide. The "POD MANAGER" section has tabs for "IMAGE", "MESSAGE", "SCREENSHARE", and "VIDEO". The "IMAGE" tab is active, showing a photo of a man. To the right of the photo is an "options" panel with a "Select An Image:" dropdown menu showing "jake pic", a "Load" button, and an "Upload New Image" button. At the bottom, there are controls for "Time: 1:56", "Participants: 2", "Stop Event", "Start Recording", and "Turn Mic Off".

Sweet FMS Apps

Justin.tv [caveat]

<http://www.justin.tv>



Justin.tv - Free live online video streaming and chat, and internet lifecasting

http://www.justin.tv/

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695 Viewers Directory | Create Account | Sign In Search Broadcast

24/7 with Ronald Lewis Join Live Chat
Hi, I'm Ron, a Denver-based blogger, podcaster, lifecaster and new media producer. Yes, I do this 24/7.

Video Highlights

- Justine asks a Dell representative where the Apple store is on [Justin.tv](#) by [whomp](#) 4 fans
- SOULJA BOY UP IN THIS HOOOOOOOOOOOO! on [Spin.tv](#) by [kolkhara](#) 12 fans
- Sneeze on [AaronScott.Tv](#) 3 fans
- Dizil takes Justopia to school on [Dizil.Tv](#) by [jeebus](#) 24 fans

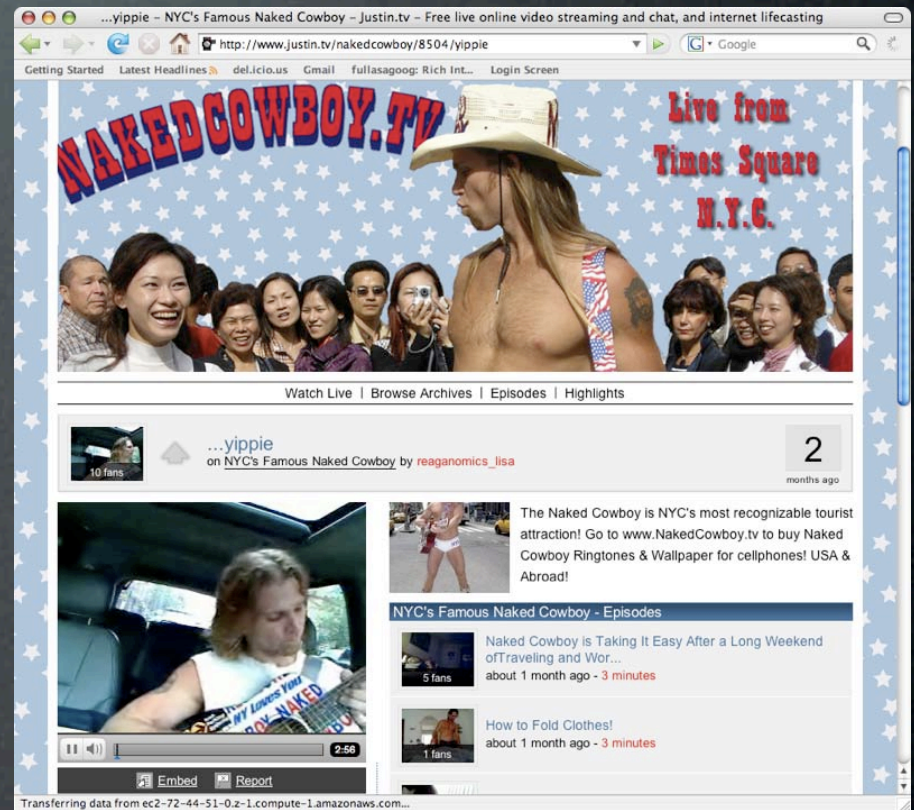
Welcome to Justin.tv, a place for live video streaming, chat and lifecasting. Check out our live video browser above! [what's new](#)

Broadcasting Beta
We're giving away codes! [Get yours here everyday at 12pm PST](#)

Featured Channels

- Justin.tv Office Hours
Webcam & beta code giveaways every Friday!
- AVFLive!
Watch the Tour of Missouri cycling race live!

Transferring data from users.justin.tv...



...yippie - NYC's Famous Naked Cowboy - Justin.tv - Free live online video streaming and chat, and internet lifecasting

http://www.justin.tv/nakedcowboy/8504/yippie

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NAKED COWBOY.TV Live from Times Square N.Y.C.

Watch Live | Browse Archives | Episodes | Highlights

...yippie on NYC's Famous Naked Cowboy by [reaganomics_lisa](#) 2 months ago 10 fans

The Naked Cowboy is NYC's most recognizable tourist attraction! Go to [www.NakedCowboy.tv](#) to buy Naked Cowboy Ringtones & Wallpaper for cellphones! USA & Abroad!

NYC's Famous Naked Cowboy - Episodes

- Naked Cowboy is Taking It Easy After a Long Weekend of Traveling and Wor... about 1 month ago - 3 minutes 5 fans
- How to Fold Clothes! about 1 month ago - 3 minutes 1 fans

Transferring data from ec2-72-44-51-0-2-1.compute-1.amazonaws.com...

Semi-sweet FMS Apps

iFoxCam

<http://www.foxcam.com>

The screenshot shows a web browser window titled "iFoxSecurity Secure Account Login". The address bar displays "http://www.foxcam.com/a". The page content includes a "WELCOME Lisa" message and "ACCOUNT: 10003". The main heading is "Secure Administration Console: CAMERA SETUP". Under "AVAILABLE CAMERAS: [click to activate]", there is a list of camera options: 0 QuickCam, 1 DVCPRO HD (1080i50), 2 DVCPRO HD (1080i60), 3 DVCPRO HD (720p60), 4 DV Video, 5 IIDC FireWire Video, and 6 USB Video Class Video. A video feed of a person is visible in the background. At the bottom, there is a "Please Log in" section with a "username:" field containing "lisamarie" and a "password:" field. A "Log In" button and a "LOG OUT" link are also present.

The screenshot shows a web browser window titled "iFoxSecurity Secure Account Login". The address bar displays "http://www.foxcam.com/a". The page content includes a "WELCOME lisamarie_guest" message and "ACCOUNT: 10003". The main heading is "Secure Guest Access: WATCH". A video feed of a person is visible in the center, with a vertical navigation bar on the left containing numbered buttons 1 through 4. At the bottom, there is a "Please Log in" section with a "username:" field containing "lisamarie_guest" and a "password:" field. A "Log In" button and a "LOG OUT" link are also present.

Hosting choices

- ▶ Flash Video Streaming Service (FVSS)
- ▶ FMS Service provider (i.e. Influxis, Uvault)
- ▶ Host it yourself (Windows or Linux)
- ▶ Local development server
 - ▶ Pentium 4
 - ▶ 3.2GHz or better (Dual Xeon or higher)
 - ▶ 1GB available RAM
 - ▶ 1GB Ethernet card

Then there's the Third-party(-crashers)...

- ▶ Wowza Media Server
- ▶ Electroservers

And of course, there's open source...

- ▶ Red5
- ▶ haXeVideo

Developing FMS Apps

- ▶ **FREE!**
- ▶ Code and test on same (Windows) machine
 - ▶ Less complicated networking
 - ▶ Full access to FMS configuration

File Structure

applications

myApp

main.asc

streams

definst

myVideo.flv

sharedobjects

definst

Let's get our hands dirty...

Video Dress-up

application »

Thank you!

Source files and more information:
www.flashconnections.com

*Flash Video for Professionals:
Expert Techniques for
Integrating Video on the Web*
Wiley Publishing, 2007

