

Overview

Newsy's systems are nearly entirely custom-built, from production process to CMS to user-facing mobile and web properties. Newsy produces content in the form of 2-4 minute video news segments that wrap content from multiple news sources into single, short, contextual videos. Each video comes with a transcript, thumbnail, links to original sources, meta tags, and user comments. Videos are distributed to the web (Newsy.com), mobile devices (iOS, Android, BlackBerry), and numerous third party syndicates via RSS/MRSS (One Screen, AOL/Huffington Post, Mixaroo).

1. Content Workflow

a. Content Workflow: An end-to-end mapping of how content flows through the Newsy system. To include original source acquisition, content ingestion, content creation, quality assurance steps, content transcoding, the content management system including content distribution. In addition, the content workflow should extend to the consumer viewer (web, iOS app, etc) for all platforms.

I. Research

Writers research content using the web, and SnapStream video service on Mac Pros or iMacs.

Stories are written in Google document, approved by editor, then copied into CMS. Headlines, tags, thumbnail, category are all assigned. The CMS includes a WYSIWYG transcript editor.

II. (a) Capture/Production

Writers and producers capture video and screenshots from the web or SnapStream.

On the web, Grab is used to capture screen shots of text pieces (with a .tiff file extension) and Snapz Pro is used to capture embedded video. Additionally, a subscription to Shadow TV allows capture of local affiliate cable broadcasts through a web interface.

SnapStream is wired to cable boxes provided by Mediacom. These may be changed to record any channel on Mediacom's service. Six channels can be recorded simultaneously.

Additionally there is an SnapStream box set up to record four more Dish Network televisions, but is currently unused. It appears to be wired but not configured for capture.

II. (b) Studio

Stories are anchored in studio (in front of green screen), shot in 1080p, using (a Panasonic AG- HVX200P camera with a Leica lens) with Prompter People teleprompter run by Flip Q software. Stories are transferred from Google Docs to a Word document, then manually imported to Flip Q. The computer running the software is an HP 620 running Windows 7 with 1.66 GHZ and 2 GB of RAM.

The studio is lit by six lights, two of which are soft boxed. Video is captured on two Panasonic P2 cards (8GB of memory each), then logged and transferred to local video server by card reader (proprietary from Panasonic) and a backup AG- HVX200P camera.

III. Video Edit

Stories are edited in Final Cut Pro 7 using templates authored in Motion. The median machine specs are:

2X2.26 GHz Quad-Core Intel processors

6 GB of DDR3 RAM

24-inch Monitor

IV. Encode

Finished stories are exported from Final Cut Pro as Quicktime Movie (H.264) 1280x720 with AAC audio at 48.000 kHz, mono, at a bit rate of 64 kbps. File size is usually between 150 and 300 MB.

V. Upload

File is uploaded to CMS by http, pushed to Zencoder by FTP, and encodes (9 total) are received back:

H.264 Website (mp4) 600 x 338 h264 mp4

High Res WMV (wmv) 480 x 272 wmv

iPad High Res (mp4) 1024 x 576 h264 mp4

iPhone High Res (mp4) 480 x 270 h264 mp4

iPhone Low Res (mp4) 398 x 224 h264 mp4

iTunes (m4v) 640 x 360 h264 m4v

Low Res iPad (mp4) 480 x 270 h264 mp4

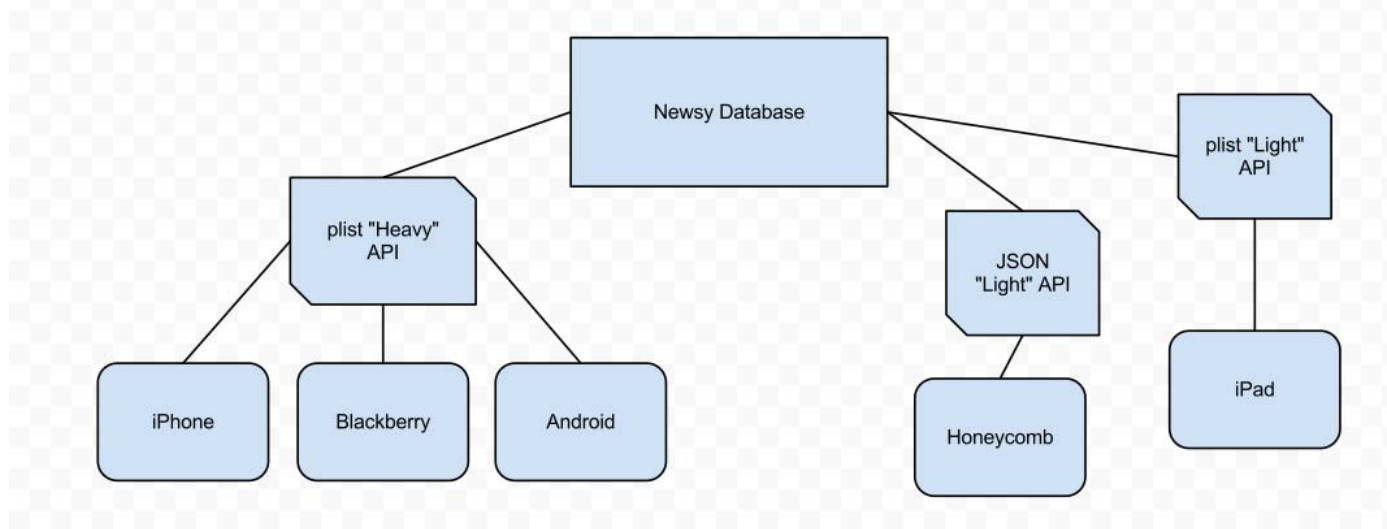
Low Res WMV (wmv) 400 x 224 wmv

Social Media (mp4) 854 x 480 h264 mp4

VI. Distribution

Video lists are distributed to mobile platforms by XML API. Handsets and tablets have different API schema: handsets operate on a "heavy" feed while tablets run a "light"

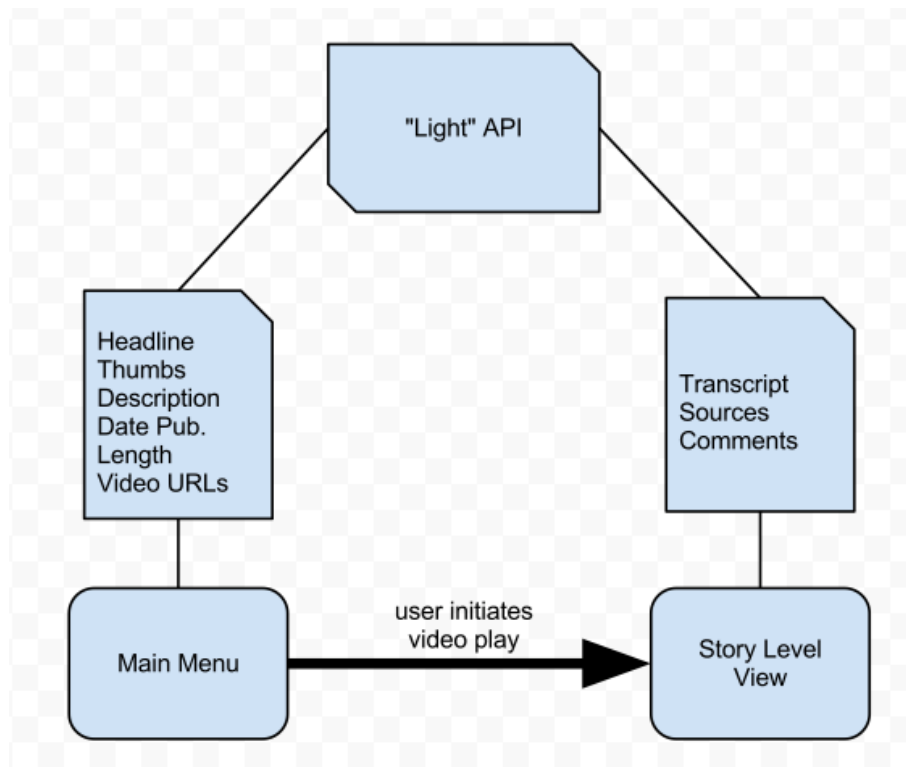
feed. The light feed scheme was developed in June 2011.



The heavy feed includes all story data for a defined number of recent stories.

<http://www.newsly.com/api/get-iphone-videos/10>

The light feed operates in two stages to decrease loading time. Stage I delivers only the data necessary to populate the main menu of the app. Stage II provides the rest of the individual story data (comments, transcript, source links). Images are downloaded asynchronously on a separate thread to improve performance.



Light Stage I: <http://api.newsly.com/api/light/get-iphone-videos/10/politics/most-recent/>
Light Stage II: <http://api.newsly.com/api/light/get-ipad-video/7000>

iPhone, iPad, Android (handset), and BlackBerry apps utilize plist-formatted XML, while the Android Honeycomb Tablet app reads a JSON XML document.

VII. Promotion (marketing)

The marketing team determines appropriate social media promotion for each story on a case-by-case basis. Select videos are uploaded to YouTube, while most stories are posted to Twitter and Facebook.

Stories the editorial and marketing teams together decide are worthy of additional promotion may be assigned a push notification, delivered to iPad app users.

A weekly newsletter, created by the marketing department, is delivered via email to subscribers.

b. Player Viewing Experience: map the viewer playback experience for all Newsy playback options (iOS, web etc). To include current, or proposed implementation, of ad integration. This section to include the broader workflow of not just the player but the integration of ad services and ad campaigns. This should include player reporting: ads served, duration of ad watch, duration of Newsy content being watched (minutes/seconds with abandons).

I. Web

The Newsy.com website utilizes an Adobe Flash player to display a 600x338 h.264 mp4. Users may choose to read the video transcript or viewer comments below the video player. No ads are shown on the website.

II. iOS (iPad and iPhone)

Videos are served by the native iOS media player. The player delivers a high or low quality encode depending on wifi or 3G connection (respectively). Ads are served by a player developed by Rhythm Media, which includes a done (skip) button that users can tap to move to the next video. Video ads are pre-roll, delivered before the second video initialization of the session and every other video thereafter. Additional server-side controls on the Rhythm system limit the number of ads shown to individual users over variable periods of time.

III. Android

Videos are served by the native Android media player. The player delivers a high or low

quality encode depending on wifi or 3G connection (respectively).

c. Ad Services: map the workflow of ad insertion, communication to the various ad servers and systems, reporting etc.

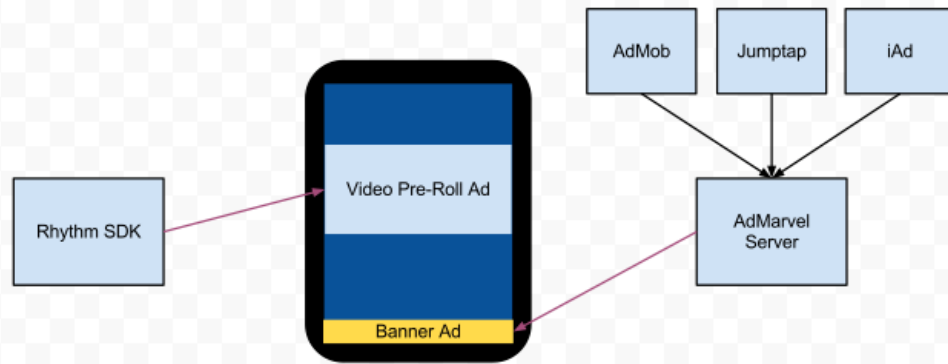
I. Web

None

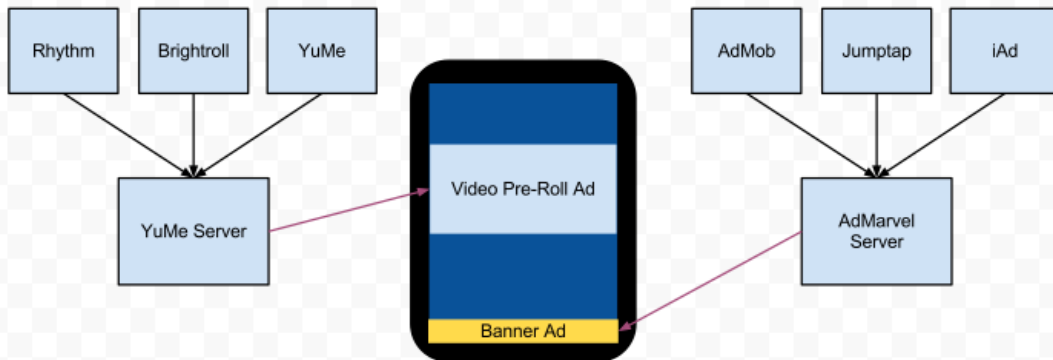
II. iPad

Banner ads are requested and received from AdMarvel's server, configured to display iAd, Jumtap, and AdMob. AdMarvel's reports and displays fill rate, real-time CPM, and click-through rate for each ad placement and network. Video ads are served directly by Rhythm Media's system.

3.1



3.2



In Progress YuMe is in the midst of a project to install their ad server for the be ability to serve video ads from multiple networks (all VAST 2.0 compliant networks serving mp4 video). This project is slated to be released with iPad v.3.1 (late September/early October).

III. iPhone

Banner ads are served by iAd, video ads by Rhythm Media. Each is reported through

their respective systems. iAd supplies a real-time web dashboard. Rhythm has promised a web dashboard now for months, it hasn't materialized. They send a monthly report with miniscule data (CPM, CTR, requests and fill).

IV. Android

Interstitial rich media ads are served by AdMob, reporting accessible through AdMob web dashboard.

d. Reporting: map the reporting flow for all statistics Newsy needs to track; content served, ads served, monetization of content, etc.

I. Web

No reporting specific to web.

II. iPad

AdMarvel reporting on number of banner requests, fills, and clicks. Can be sorted by individual site, ad network.

Reports number of video initializations to dashboard on newsy.com/admin

*no real-time reporting for Rhythm video ads

Metrics are collected by third-party system Flurry. Collects session length and frequency, user demographics, and custom events in app (tap of certain buttons, frequency of use of features)

III. iPhone

iAd web dashboard reports number of banner ad impressions

Reports number of video initializations to dashboard on newsy.com/admin

*no real-time reporting for Rhythm video ads

Metrics are collected by third-party system Flurry. Collects session length and frequency, user demographics, and custom events in app (tap of certain buttons, frequency of use of features).

IV. Android

Android web dashboard reports number of interstitial rich media impressions

Reports number of video initializations to dashboard on newsy.com/admin

Metrics are collected by third-party system Flurry. Collects session length and frequency, user demographics, and custom events in app (tap of certain buttons, frequency of use of features).

2. Staff

a. Create a mapping of staff to content workflow (existing)

I. Editorial and Marketing

STAGE 1 (Pitch): Story pitches go to JJ, Tracy, Flink, Christina, Mallory and Steven Sparkman. Sometimes Charlie.

STAGE 2 (Writing): Script research and writing

Staff involved: Students and all part and full-time Editorial staff.

Script approval done by JJ, Flink, Tracy, Christina, Mallory, Steven Sparkman, Charlie.

STAGE 3 (Production): Video production, including anchor capture and video editing

Staff involved:

Newsy:

Full Time: JJ, Charlie, Adnan, Tracy.

Part Time, Steven Hseih, Madison Mack

AOL/HuffPo:

Full Time: Nathan, Erik, Christina

Part-time: Charesse, Bill, Jing, Qing, most students.

STAGE 4 (Publishing): JJ, Tracy, Christina, Adnan, Charlie.

Editorial Tech Changes (CMS, process changes, equipment changes): JJ, Charlie.

b. Define the engineering and operations teams (existing)

Mobile development

Tyten – Mobile Development Manager

Geoff – Mobile Developer

Tony – Manager, Products & Partnerships; app designer

c. Outline vulnerabilities for 2a and 2b.

- No root access to Web server.
- No in-house Web administrator/developer.
- All tech support for SnapStream, wiring, Shadow TV is through outside vendors (this is somewhat unavoidable but should be noted)
- Apple XServe discontinued. As all file sharing and management is run through this, as support and compatibility drops, we will need a back door.
- Graphics and images in editorial and marketing departments are often prepared by staff with no familiarity with graphics best practices.

d. Create job descriptions for positions that need to be created and filled (example system architect).

3. Technology Map

c. Technology analysis: Document known deficiencies in the technology implementation. This can be missing implementations on the content player, earlier decision on technology selection that should be replaced or missing technologies that need to be supported (example Android), scaling issues, etc.

- No HTTP LS
- Snap Stream Dish not being utilized at all
- Shadow TV vs. SnapStream: Shadow has much wider reach, but the quality is low
- Production cannot be done on iMacs effectively. Need to be replaced with Mac Pros
- HTML 5 players non-existent