

TECHNOLOGIES FOR LIVE STREAMING TO MULTIPLE PLATFORMS

Jan Ozer

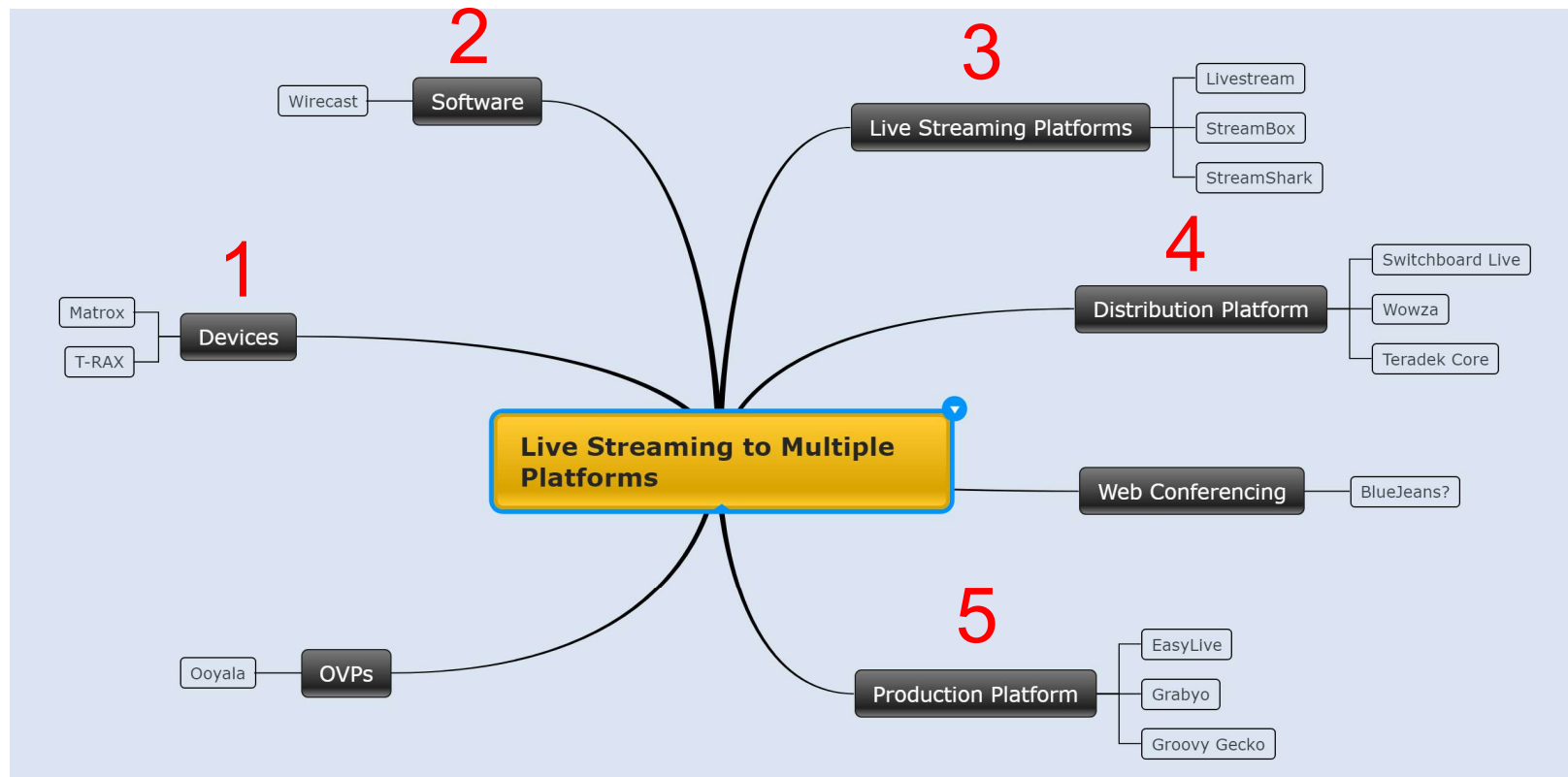
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Agenda



Facebook Live Rules to Live By

19. Live API

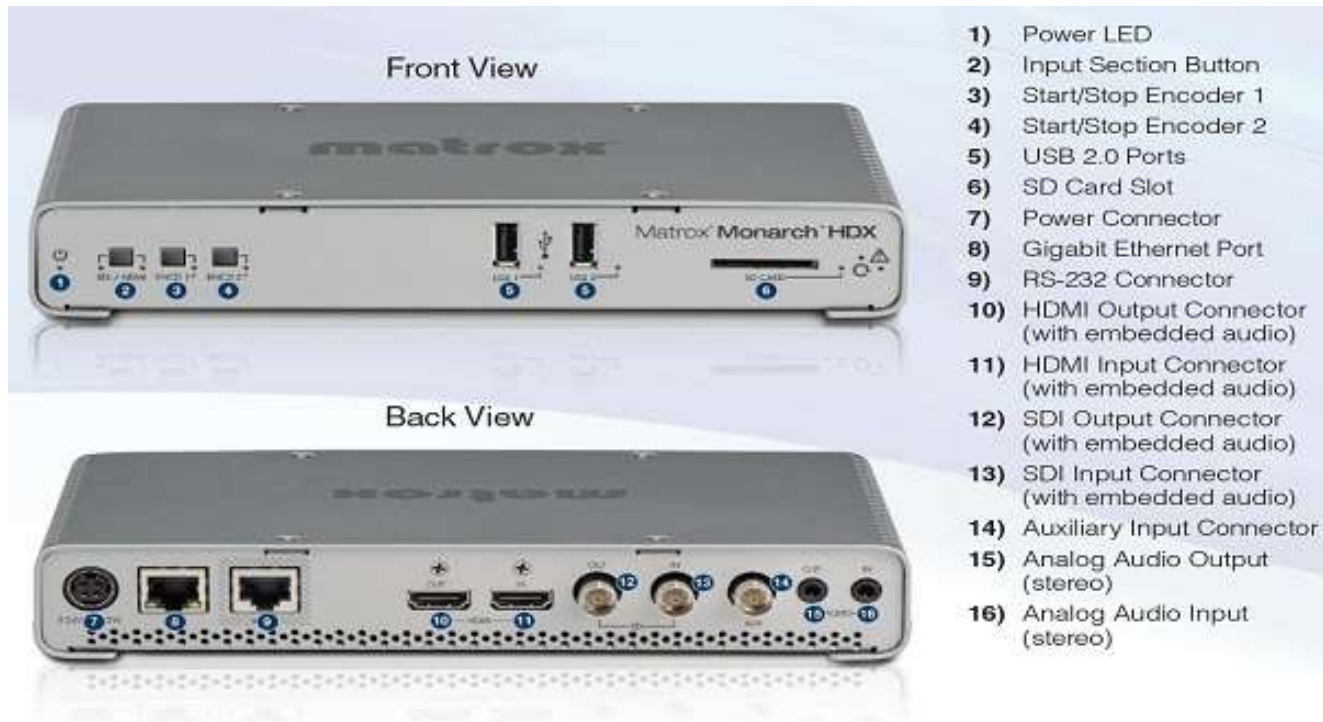
1. Don't build apps that enable publishers to simultaneously stream to Facebook and other online streaming services.

- So, can't use preset to stream to Facebook Live AND another service
- Workaround
 - Use custom RTMP settings for other services (or FBL)

Devices

- Overview:
 - Hardware devices that stream directly to one or more services
 - Specialized boxes – Matrox Monarch HDX
 - Streaming Media Review - http://bit.ly/ma_mon_hdx
 - Traditional hardware encoders (here at the show)
 - Teradek – T-Rax
 - Telestream - Lightspeed Live Stream

Matrox Monarch HDX



- **Dual-Channel H.264 Encoder for Broadcast Streaming and Recording**

Matrox Monarch HDX

1. Typical customer? Broadcasters, event producers, medical facilities, educational institutions, houses of worship, corporate communicators, and legal videographers worldwide.

2. Why an appliance rather than a cloud service? Less expensive than paying a cloud service. Also can:

- stream to primary and back-up server destinations for redundancy
- Stream locally at high bitrates and to a CDN at a lower bitrate;
- Stream to platforms such as YouTube Live or Facebook Live and your own website to target both platforms for more immediate exposure

3. Key features that differentiate your product from others in the same category?

- Two independent encoders
- Frame synchronizers ensure that frame quality isn't degraded due to switching or signal noise.
- File consolidation utility
- SDI power-loss bypass relay - when unit power is lost, the by-pass activates and the SDI signal is routed through the box and to the next step in the workflow
- Closed Captioning support – pulls captions data from SDI VANC and embeds as CEA-608

4. How much does your hardware cost? \$1995

Matrox Monarch Case Studies

- <http://www.matrox.com/video/en/press/insights/Seventh-Day-Adventist-Church/>
- <http://www.matrox.com/video/en/press/insights/Lifehouse-Church/>
- <http://www.matrox.com/video/en/press/insights/Chonnam-Hospital/>
- <http://www.matrox.com/video/en/press/insights/Rambert-School-of-Ballet/>
- <http://www.matrox.com/video/en/press/insights/Dr-Ralhan/>

Teradek T-Rax



T-RAX is a high-density enterprise-grade H.264 platform that encodes, decodes, and streams video at broadcast quality

Teradek T-Rax

1. Who is your typical customer?

- Enterprise and broadcast companies.

2. Why an appliance rather than splitting the stream using a cloud service?

- Security, is tantamount so on-premise hardware is preferred by some customers
- Many others simply do not like subscription payment models for cloud services.

3. What key features differentiate your product from others in the same category?

- Affordability, power efficiency, capability-dense.

4. How much does your hardware cost?

- T-Rax starts at \$3500. Each additional encoder or decoder card is about \$1500.

5. Case studies?

- <https://teradek.com/blogs/articles/live-x-uses-t-rax-and-core-to-launch-dji-s-mavic-drone>

Lightspeed Live Stream



Live Multiscreen Encoding, Packaging and Distribution

Lightspeed Live Stream

1. Who is your typical customer?

- Media and entertainment companies, corporations, government agencies and educational facilities

- HLS and DASH outputs
- HEVC encoding
- Caption pass-through
- Can input images and video into the stream

2. Why an appliance rather than splitting the stream using a cloud service?

4. How much does your hardware cost?

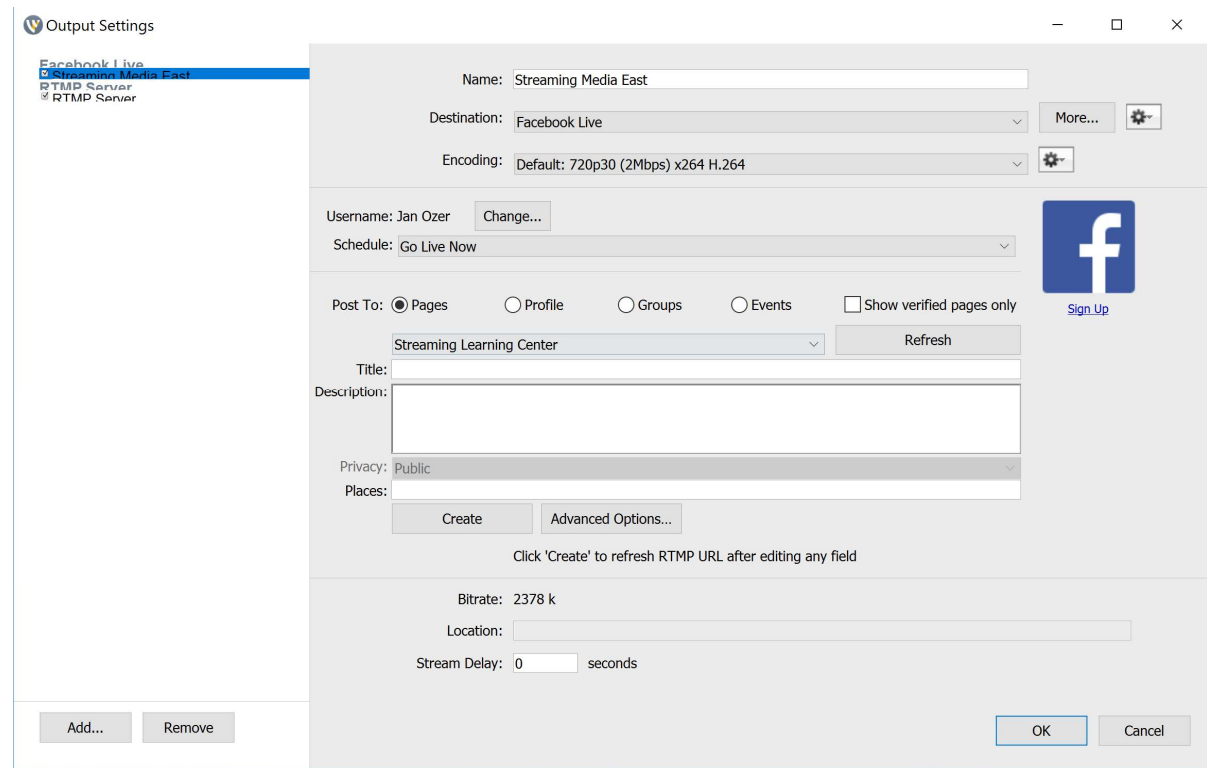
- \$49,950

3. Key differentiating features?

- 4 HD-SDI inputs can be used separately or for 4K input
- Density
- Also accepts IP input sources

Desktop Production Software

- Wirecast – desktop production software
- Can transmit to more than one service simultaneously
 - Not all desktop production programs can do this
- Others in class
 - vMix



Wirecast Software

1. Who is your typical customer?

- Varies, from multi-million dollar productions (John Legend and Snoop Dogg), Mr. Bean's Facebook stream to 69+ million fans,
- To family and church users

2. Why Wirecast rather than splitting via a cloud service?

- **Cost-saving** – most re-stream sites require a subscription or pay-as-you-go
- **Convenience** — configuring re-streaming in the cloud can be a hassle to set up/another interface you have to deal with
- **Deeper API Integration** — most other manufacturers or service providers don't offer the level of sophistication we do with API integration on leading platforms
- **Latency** – using a re-streaming site adds to latency

Wirecast Software

3. What features differentiate your product from others in the same category?

- Cross-platform software that works on Mac or Windows
- Ease-of-use
- World-class support
- Deeper partnerships and integrations within the live streaming ecosystem and industry for better user experience and competitive advantages

4. How much does your solution cost?


- Software Only: \$495 for Studio, \$995 for Pro
- Software Bundle + Hardware – Wirecast Gear turnkey – starting at \$4995


Live Streaming Platforms


- Streaming platforms that
 - Input live streams
 - Enable playback on their own site
 - Enable playback on your site via embedding
 - Also can send a stream to Facebook Live
- Representative companies
 - Livestream
 - StreamShark
 - StreamBox
- Key value proposition
 - Simplicity
 - If using this service already, pretty easy to distribute to other sites
 - If using a service, check if they support multiple outputs


Livestream


- Choose Facebook Live as another destination for Simulcast
- Or, YouTube plus Custom Destination


 Account


 Password


 Simulcast NEW


 Notifications

 Plans

 Billing

 Donations

 Devices

 Advanced


Simulcast

Connect and stream to multiple destinations.


Simultaneously broadcast to Livestream, Facebook*, Periscope, YouTube, or any other RTMP destination with a single stream.


[How simulcasting to Facebook Live and YouTube works](#)
[Recommended settings for Periscope](#)
[Setting up a custom destination \(Twitch, Periscope, etc\)](#)
[List of approved broadcasting tools](#)

* Facebook can only be simultaneously streamed with Livestream due to Facebook restrictions.


 Facebook

ADD

OR 

 YouTube

ADD

 Custom destination
Twitch, Periscope, etc

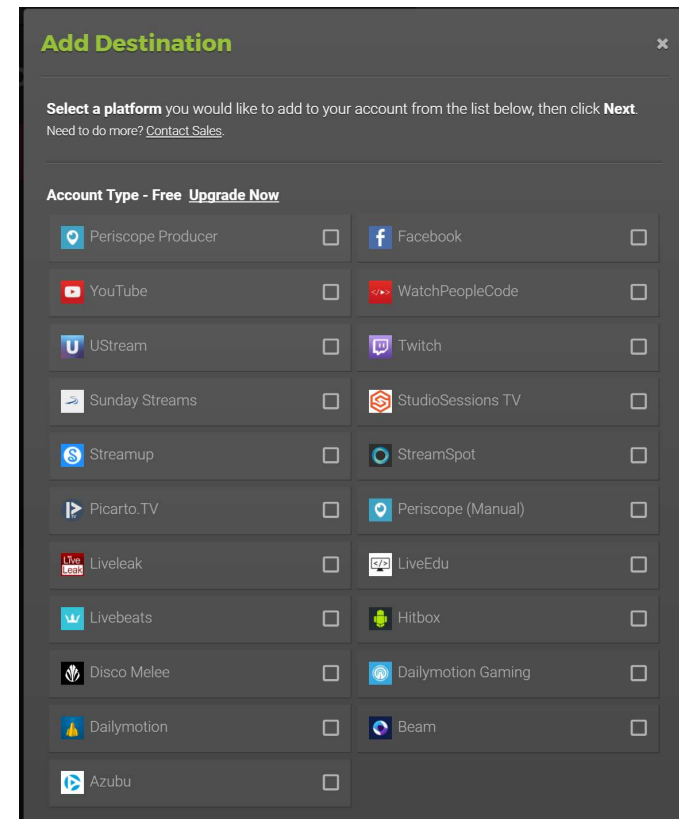
ADD

Distribution Platforms

- Web services designed primarily to deliver incoming stream to multiple outputs
 - Turnkey
 - Switchboard Live
 - Teradek Core
 - Developer focused
 - Wowza

Switchboard Live

- Originally Joicaster
- Choose and configure multiple destinations
- Input one or more streams
- Select multiple output points



Switchboard Live

1. Who is your typical customer?

- Live content creator big or small, tasked with publishing live streaming content to multiple destinations, simultaneously.
- From an individual user or small business to an enterprise client responsible for a massive production of a show or conference with presence on multiple viewing destinations.

2. Why a web service rather than individual encoders?

- Bandwidth cost at venues are typically charged at a premium. If advanced features are needed, more costs are involved; ie isolated VLAN, configuration to support streaming video.
- Paid skilled operators to support multiple hardware devices.
- Publishing of live streaming content to multiple destinations require synchronized efforts.
- Destination management; account authorization
- Event creation on destination sides; require management from social or marketing team

Switchboard Live

3. Why use your system rather than Wowza or a similar platform?

- Wowza is geared for technical users; we've built Switchboard Cloud to be used by the teams that are responsible with the messaging of the live content; the marketing and social media team.
- Our goal was to reduce the technical overhead associated with producing a live streaming event and make it easier for a non techie to be able to connect, engage, and grow their viewing audience.

4. What features differentiate products in your category?

- Stream share enables a user to send an email request to another user to be granted access to stream to their page or channel; like Facebook, YouTube, Periscope, Twitch....
- The ability to stop and start publishing to live destinations independently.
- The ability to update the title or description (meta) of a published live stream via API.
- The ability to provide an HTML5 player with CDN delivery for embed purposes
- The ability to support multiple ingestion points; so multiple inputs from multiple encoders can be managed from one interface
- We have both a developer & Switchboard API.

Switchboard Live

- **5. Which platforms can you distribute to?**
- Pretty much any RMTP based live streaming destination and platform.
- We are also API integrated with LiveU Solo and listed as destinations within OBS and LiveU Central.
- Deeper integrations are now in the works with the completion of our API.

6. Pricing model

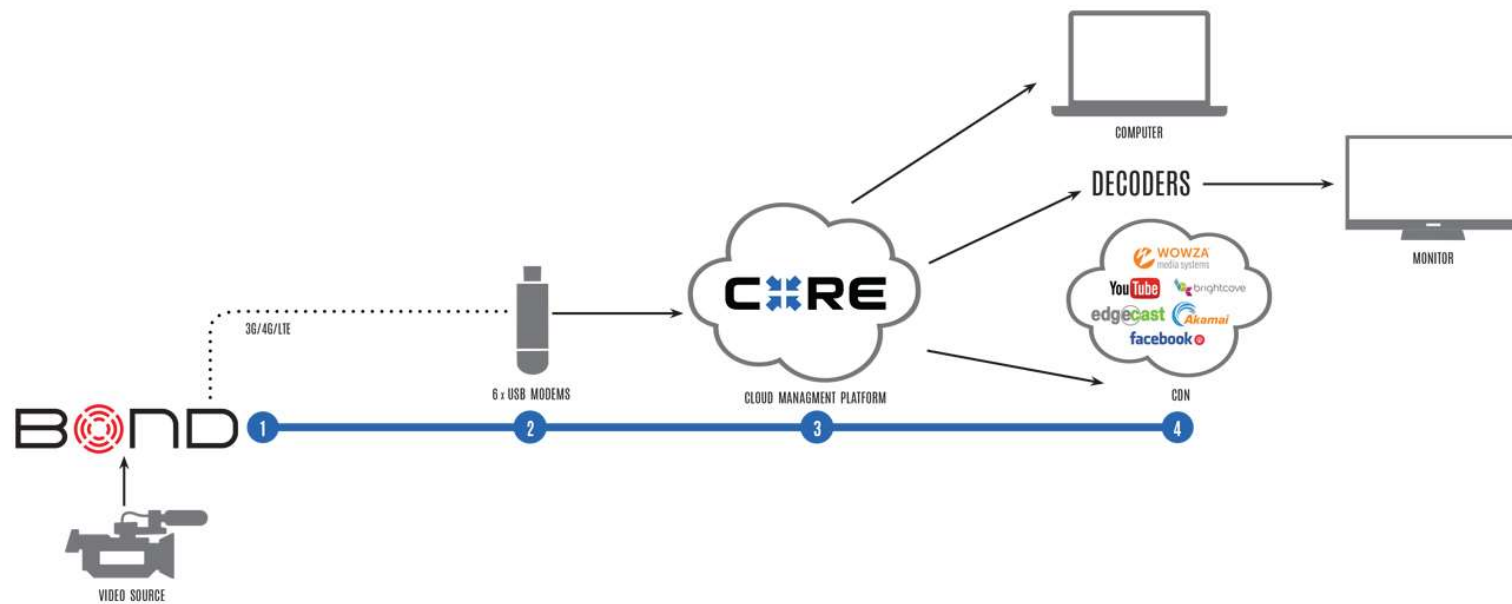
Depends upon usage; there are free plans, and others that start at \$25/month.

Switchboard Live Pricing

	Starter	Individual
	Free	\$25.00 /mo
BENEFITS		
Free 30-Day Trial		✓
Unlimited Streaming	✓	✓
Streams	1	1
Destinations *	3	5
Connect Chat	✓	✓
Connect Scheduler	✓	✓
Connect Activity	✓	✓
UPGRADES		
Transrate		\$10.00 /ea
Custom RTMP **		\$10.00 /ea

Teradek Core

- Core allows you to publish a single video feed to multiple destinations all at the same time





Teradek Core

1. Who is your typical customer?

- Enterprise, broadcast, production companies, and sometimes churches

2. Why a web service rather than encoding with multiple hardware devices?

- Simplicity and accessibility. Less hardware to lug around or install

3. Why use your system rather than Wowza or a similar platform?

- Wowza lacks key features required for multi-platform delivery. For example, Core can remotely manage and configure your Teradek encoders, archive your streams, transcode, and more.
- Its a bespoke IP video management ecosystem for Teradek users.

Teradek Core

4. What features differentiate products in your category?

- For us, remote configuration and codec management is a big deal
- Ease of use is another key factor (simply login to your account online or from your encoder)
- Reliability.

Pricing

<https://core.teradek.com/#welcome>

Monthly

☒
☐

Annual

	<div>Premium</div> <div>\$249.00</div>	<div>Basic</div> <div>\$99.00</div>	<div>Starter</div> <div>\$49.00</div>
Number of devices	<div>5 encoders</div> <div>5 decoders</div>	<div>2 encoders</div> <div>2 decoders</div>	<div>1 encoder</div> <div>1 decoder</div>
Live:Air apps	5	2	1
On-demand Sputniks	Yes	Yes	Yes
Core-hosted Sputniks	2	1	0
On-premise Sputniks	Unlimited	1	0
Data Transfer	300 GB	50 GB	25 GB
Recording	Yes	Yes	No
Free trial	No	30	30
	SUBSCRIBE NOW	SUBSCRIBE NOW	SUBSCRIBE NOW

Production Platforms

- Web services that input stream, edit or process it in some way, and then deliver incoming stream to multiple outputs
- EasyLive
- Groovy Gecko

Go Easy Live

- Cloud powered production platform



SETTING (DONE)

PREVIEW (DONE)

CURRENTLY IN LIVE

END BROADCAST

Automated shut down 20 days 19:43:09

▶

▶

▶

▶

▶



Philippe

CNN : Jeff Sessions' sentencing plan would ruin lives, writes Rand Paul
<https://t.co/OLtsPFCYGe> <https://t.co/nWXPV9rb1W>

Display Editor

+ ADD

i

Layers

#2 Easy Live

#3 Facebook Title Haha

#4 Facebook Logo Haha

#5 Dogs

#6 Facebook Logo Love

#7 Cats

#8 Facebook Logo Like

#9 Photo Dog

#10 Photo Cat

#11 Facebook

Edit

RENAME

POSITION

IMAGE

TEXT

LINK TO

APPLY →



Philippe

CNN : Jeff Sessions' sentencing plan would ruin lives, writes Rand Paul
<https://t.co/OLtsPFCYGe> <https://t.co/nWXPV9rb1W>

Display Manager

EDIT

SWITCH

i

x

Easy Live

Facebook

Facebook Title Haha

Facebook Logo Haha

Dogs

Facebook Logo Love

Photo Dog

Cats

Facebook Logo Like

Photo Cat

Scoring

Lower Third

Delete

Order

Message

On Live

Jeremy

Jeff

Philippe

Sean

ADD A MESSAGE

Easy Live

1. Who is your typical customer?

- B2B (Media, corporate, e-sport, etc.)

2. Why a web service rather than individual encoders?

- save bandwidth and budget on multiple hardware encoder.

3. Why use your system rather than Wowza or a similar platform?

- Our solution is turn key, no install, minimum configuration
- Additional features like adding graphics, generating clips, PIP, ingest Media, etc. and
- System is fully API driven

4. What features differentiate products in your category?

- Our solution is turn key. cloud-based production software + multipublishing

5. How does your pricing work (link to pricing page is OK).

- We offer different packages but our 1st package starts at \$299 per month unlimited usage.

6. Which platforms can you distribute to?

- Every platform (Akamai, Livestream, Wowza, Youtube, Periscope, Twitch, Facebook, etc.)

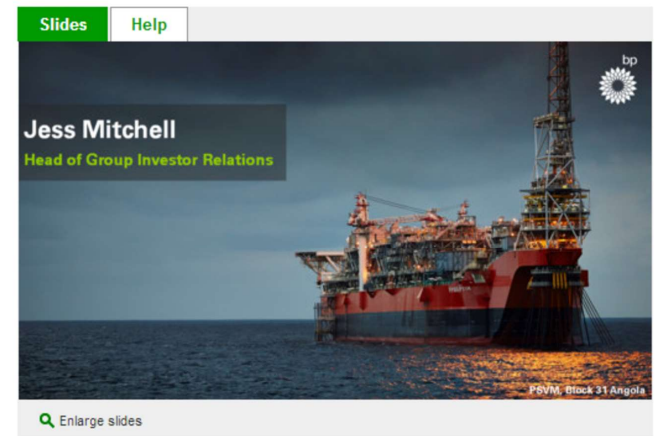
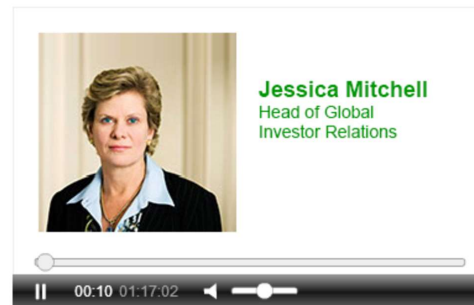
Groovy Gecko

- Online video specialists



BP's first quarter 2014 results

[Home](#) | [Logout](#)



Slide index



BP's first quarter 2014 results



Jess Mitchell



Cautionary statement



Bob Dudley



Agenda



Brian Gilvary



1Q 2014 Summary



Groovy Gecko

1. Who is your typical customer?

- Broadcasters such as Channel 4 and ITV
- Large corporations using streaming for investor relations or internal meetings, such as BP
- A wide variety of brands, including Nike, O2, NBC Universal, the UN, and Liverpool FC.

2. Why are they using a web service rather than multiple hardware devices?

- Our customers are mainly using web streaming to engage directly with their audience, via social media.
- For the broadcast clients, it is about delivering additional live content to complement broadcast TV.
- For all of our clients, it is about true **engagement** with that audience, enabling them to comment, ask questions, answer polls, and in some instances change the course of the live stream. That is simply not possible in any other way.

Groovy Gecko

3. Do you offer the following features?

- a. Real time clipping and DVR? *Yes*
- b. Graphics and text overlay? *Yes*
- c. Monetization via ads? *Yes on platforms which offer this service*
- d. Monetization via PPV? *Yes*
- e. Do you offer a smartphone app for mobile input? *No*
- f. DRM? *Yes*

4. What other features differentiate products in your category?

- The Facebook tools we have developed based on the Facebook Live API for live interactive streaming we believe are unique.
- This includes a question moderation system, which enables customers to sort through questions from the social platform and deliver them to the presenter
- Live polling gives viewers the option to change the outcome of the stream and our distribution mechanism allows us to deliver video content into multiple Facebook post simultaneously or even multiple platforms.

Groovy Gecko

5. How does your pricing work?

- Our products are delivered as a service so pricing is very much dependent on the complexity and length of the project. Both the traditional LPS and social streaming products start from a base price of around £3000 per event and rise depending on levels of interactivity, range of distribution and length of show.

6. Which platforms can you distribute to?

- a. Facebook Live? Yes and we are a Facebook partner for both FB Live (standard and 360) and Workplace Live
- b. Can you send the same stream to multiple FBL pages/profiles simultaneously? Yes
- c. YouTube Live? Yes both standard and live 360
- d. Periscope? Yes
- e. Your own branded player embeddable in a customer's web site? Yes
- f. A page on your service? We don't offer an independent service

Questions?