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# The Essentials of Online Video Logistics

Monetizing your video content  
in a multi-channel world

# The revolution won't be broadcast

Video has always been an immensely powerful medium. But until recently, there's really only been one channel available for delivering it: broadcast TV.

For brand marketers, that meant expensive TV ads. For media and content owners, it meant a tightly controlled channel to market controlled by a few power players.

The Internet and ubiquitous broadband have blown this paradigm to smithereens.

Today, there are hundreds of ways to get your video content to your audiences. From all the weird and wonderful websites to mobile devices, games consoles, in-store kiosks, IPTV and Video-on-Demand services.

This explosion in video channels has led to an equally dramatic influx of innovators, disruptors and challengers – all competing for a finite resource: the time and attention of consumers.

Welcome to the new video universe, a massive opportunity welded to an enormous threat. As a content owner, media player or marketer, you've got to master this new video landscape now.

**Get it right** and you'll engage the biggest audience you've ever reached – and do it at an incredibly low cost.

**Get it wrong** and you'll lose your audience to competitors and waste a fortune chasing doomed opportunities.

This short eBook is here to help you get it right – by helping you plan and develop a video distribution operation that's suited to the challenges of a multi-channel world.

“Video is the fastest growing segment of all internet traffic... and will grow from a \$2bn market in 2008 to \$28bn in 2012.”

STL Partners, Online Video Distribution Briefing

# Return On Content: the new killer metric

The key to exploiting the new video marketplace is to bring together the right content, business model, processes and partners for each and every opportunity – whether it's a pay-per-view channel, a mobile subscription service or an ad-funded, web-based video aggregator.

It all comes down to Return On Content and it means scaling your investments to your opportunities, re-using your resources and staying agile so you can get content to market faster and at lower cost.

Let's face it: for the most part, the growth in online video consumption has not yet been matched by a growth in revenue. So, while you need to be involved in a wide range of video channels and models, you can't throw money at every play.

## **Back to front**

In some industries, back-end systems and processes are just that: non-core, low-impact housekeeping functions. In online video distribution, back-end operations often determine success or failure.

Trying to exploit new channels using manual processes and service-specific silos not only extends your time to market, it also raises the 'threshold of viability' for each new service and channel. That's the fast track to failure.

Today's agile video content business or marketing department depends on a lean, streamlined and largely automated video content delivery.

We call this emerging discipline Video Logistics and it's not just the domain of techies – it's a critical success factor for every video content business.

## **Video Logistics:**

The art, science and business of getting high-quality video to audiences across all digital channels.

“84.4 percent of all US-based web users viewed online video – a total of 28 billion videos – in October 2009.”

ComScore

# Video Anarchy

In stark contrast to the monolithic world of broadcast TV, online video is a tangle of formats, standards, models and middleware.

This state of Video Anarchy is created by three main dynamics:

**Diversity** – of channels, devices, services and business models. Streaming, multi-cast, VoD, subscription and ad-funded services delivered to smartphones, tablets, games consoles and IPTV networks.

**Complexity** – of technology stacks, compression algorithms, network protocols, middleware, access control, rights management and streaming technologies. Compared to this, HTML is a piece of cake.

**Change** – even if you could freeze the current video ecosystem, the diversity and complexity would present a daunting challenge to the content owner or video-rich marketer. But you can't. Every week brings new players, technologies, models and devices.

In short, the new online video landscape is a mess. What works on one service is almost guaranteed to break on another.

Delivering a reliably high-quality user experience against this background is not impossible – but it's certainly not trivial.

“A couple of years ago, the act of encoding video was pretty simple as there were not many formats or platforms for delivering video. But today, with all the different formats, codes, devices and platforms... it's not uncommon for one piece of content to have be encoded half a dozen times, all requiring different encoding specs.”

Dan Rayburn, BusinessOfVideo.com

# The Five Big Challenges of video distribution

Delivering high-quality video experiences across all channels means rising to five key business process challenges:

## 1) Centralising all your assets

Getting all of your video content (and all third-party content you manage) into one central place – in the right format.

## 2) Managing your video assets

Tagging, linking, storing, versioning and structuring every asset so you can find it, slice it, dice it, preview it and manipulate it all quickly and easily.

## 3) Automating your workflows

Creating streamlined workflows that match your real-world processes, with as few manual tasks as possible.

## 4) Repurposing and distributing for every service

Automatically generating the best format for each channel and delivering it on time at the highest quality possible.

## 5) Measuring the impact

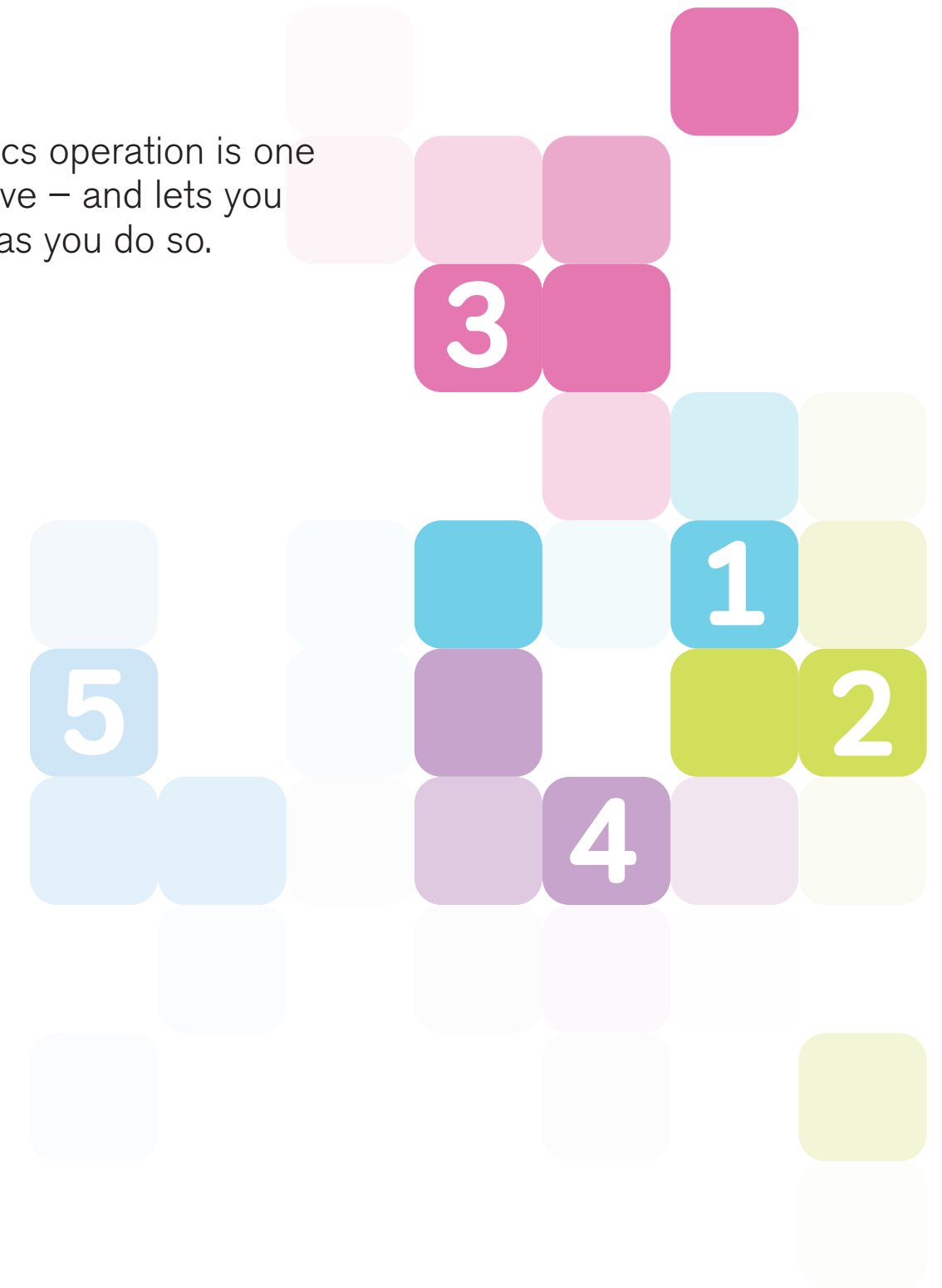
Working out which video is the most successful and which channels and platforms work the best – and understanding why.

These challenges run much deeper than the technicalities of video delivery – they are core business process challenges that can make or break any video-intensive content provider or brand.

Falling at any one of these hurdles could cripple your video content initiatives.

A successful Video Logistics operation is one that helps you master all five – and lets you scale up to meet demand as you do so.

Let's take them in turn...



# 1 Centralising your assets

Most video delivery operations fail because no one knows exactly what's owned, where it is, what format it's in and what rights and clearances are attached.

This was bad enough in a single-channel broadcast world. In a multi-channel world, it's utterly unsustainable.

Your video content needs to be treated like an asset. That means it can't stay atomised throughout your operation (and further afield) or locked into physical formats.

You need a way to quickly ingest all video (your own and content from third-parties) into a central database. Just as importantly, you need to be able to validate each piece of content – ideally before you start loading it – so you know it's in the right format. (Remote validation is a key concept here: allowing users to validate content on their desktop before it takes up bandwidth, storage and workflow cycles.)

In short, the ingestion process needs to be as automated as possible. Manual processes generate human error and delay.

## How not to do it

Believe it or not, video delivery is still largely dependent on couriers. This is not only hellishly expensive, it's also plagued by errors (because there's no validation).


It's not uncommon to pay \$100 to get a tape to its destination only to find it has no audio track, the wrong aspect ratio and Latvian sub-titles. If your video operations depend on this kind of process, you will fail.

And digital file transfer falls into similar traps.

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## The trouble with FTP

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File Transfer Protocol is a common way of transferring files or ingesting them into a central system. It's not particularly fast or efficient for large files (like video) but it has one advantage: it gets through most firewalls. 

Much better is file transfer based on the User Datagram Protocol (UDP). Handled correctly, it's many times faster than FTP; has no firewall problems; and it's super-secure.

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## 2 Managing your video assets

As you ingest video content into your central database, you need an automated way to tag, store and structure it, with metadata such as:

**Content details** – title, length, stars, etc

**Technical details** – bit rate, file size, codec...

**Keyframes** – for a quick visual ID

**Attachments** – Word docs, purchase orders...

**Tracking status** – where it is in your workflow and its history

**Rights status** – who owns it, where it can be played and when the rights stop

**Publishing profile** – all locations where it's published (YouTube, Hulu, mobile, etc)

**Versions** – subtitled or logo stamped versions; different edits, etc (with parent-child relationships preserved)

**Groups** – creating collections of assets that can be treated as single assets (so you can, for instance, encode twenty files for iPhones in one step)

Done properly, most of this metadata will be generated automatically, essentially enabling a rich content database that builds itself.

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### The power of search

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It's essential that you can search and query your content database in different ways, including:

**By metadata** – according to any tags including your own schema (such as product model, or by sports event)

**By general information** – search by who owns the content, by the state of the asset, by the date it was ingested...

**By technical data** – search for all Quicktime files, all files between 10-30 seconds, all NTSC files...

Rich search capability is absolutely critical to an effective Video Logistics operation. Make sure your central database can support it.

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# 3 Automating your workflows

Getting a piece of video content to an audience is a complex, multi-step process stringing together up to 50 discrete actions (ingest, transcode, publish...). And it's different for every channel and service.

You can't do this without tight control over each and every workflow stream. And you definitely can't do it manually.

Here are some tips for creating effective workflows:

## **Automate wherever you can**

An optimised Video Logistics operation will be built around highly automated workflows that manage each critical process. Manual steps can be weak links.

## **Validate automatically at every step**

Build in validation so you can ensure each step is performed correctly before proceeding.

## **Promote transparency**

Make sure you can watch each workflow progress in real time so you can monitor progress step by step.

## **Build in alerting**

Alert the content owner and/or administrator when a step fails – by email, text or flugelhorn if necessary.

## **Fail intelligently**

Allow the workflow to retry from where it broke down. If a network connection is lost, pick up where you left off.

## **Think 'transactions'**

A transactional workflow engine can't leave your assets in weird places or in 'illegal' states. If an action step says 'publish to YouTube' it needs to update the database to confirm successful publication. If not, it needs to remove the broken file and alert the administrator.

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## **No techies needed**

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Workflows need to be created by real business users not just techies. Anyone who understands a process and its steps should be able to build an effective workflow using 'drag & drop' logic nodes from a palette of action steps.

Generic workflow software is okay but will require intensive customisation to map to the workflows specific to video delivery – as well as the non-trivial system integration challenges and costs.

Better to find a platform with video-specific workflows built in.

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# 3 Continued / Automating your workflows

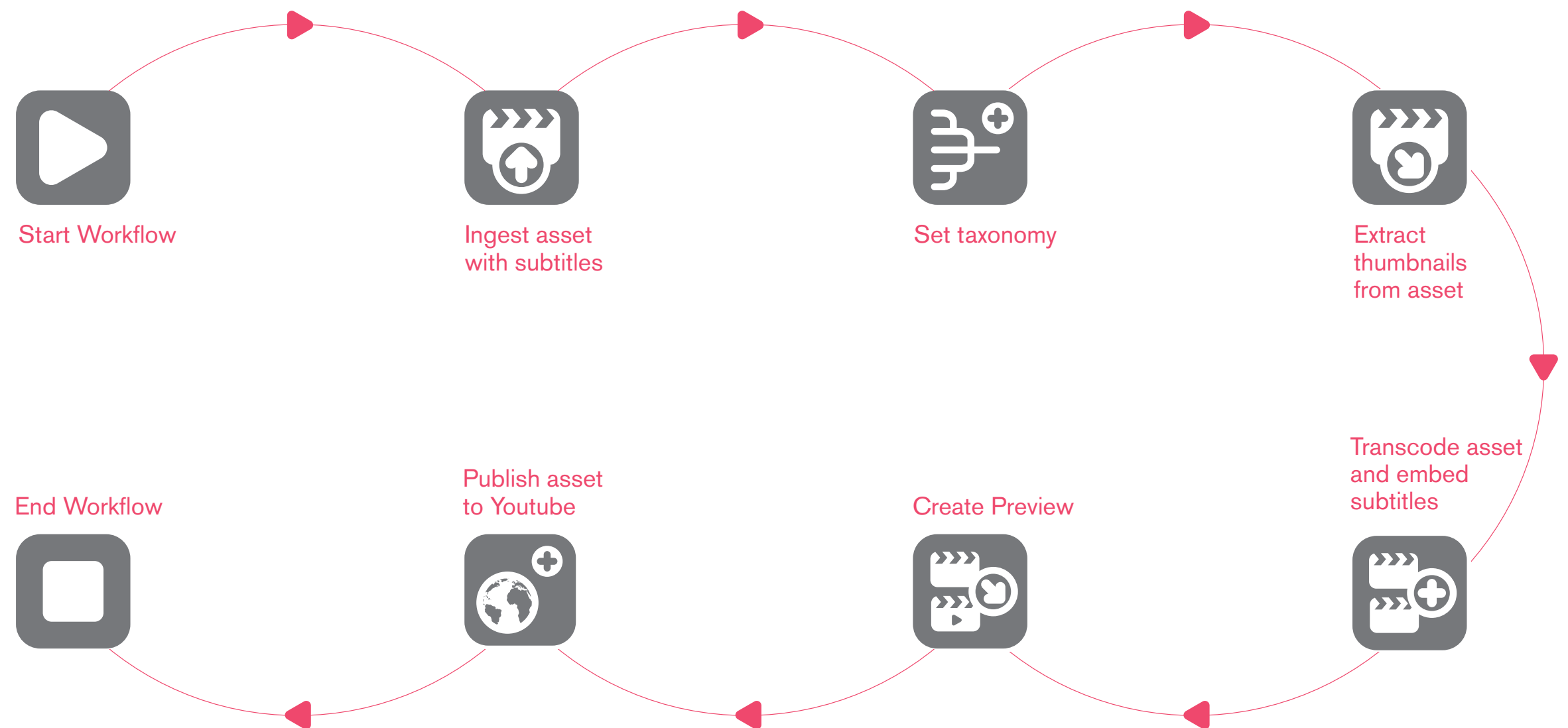
## Integrate humans

Some workflows can't be 100% automated. You need a platform that manages people, too. So users can log in to a simple dashboard, see their list of tasks, complete them and send the process on its way.

## Make sure your workflows scale up

Processes that are reliable at small transaction volumes can prove completely unsustainable when you scale them up. Make sure yours are optimized for your large scale content warehouse and can serve millions of deliveries with ease.

A simplified automated workflow tree in MioEverywhere™



# 4 Repurposing and distributing for every service

Any video delivery operation has to master a dizzying range of formats, standards, networks, devices and screen sizes.

The idea is to automatically generate the best format for each channel, then deliver it on time at the highest quality possible, with no mistakes and minimal manual intervention.

An effective Video Logistics platform will capture the optimum formats and specifications required by each channel or service so that the video content can be re-purposed or transcoded on-the-fly. And it needs to scale up to handle skyrocketing user demand and massive video file logistics.

The alternative is lowest-common denominator formatting that might work on many different channels but won't be optimized for any (which leads to a poor user experience and low repeat viewings).

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## Direct consumer delivery

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As a content owner or marketer, you won't always be delivering video through network or media partners. Sometimes you'll want to deliver it directly to users on your websites or mobile apps – whether as file downloads or streams.

You'll want to be able to deliver to the common third-party web video players but you'll also want to create unique user experiences yourself. The key here is 'unique'. If you use the hard-coded players out there you'll look like everyone else.

Much better is a playout module that lets you or your agency wizards create exciting, branded, front-end experiences you can feed from your platform.

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# 5 Measuring the impact

Maximising your Return On Content depends on continuously improving the content and user experience delivered to each channel. You won't get everything right first time.

To do this, you need a clear view of how your video content is performing across all channels.

Web analytics alone is not enough – it only looks at one channel and it tends to bury you in irrelevant detail, hiding the critical metrics specific to video.

We're firm believers in video analytics, an approach that highlights the metrics that matter most to video content owners and marketers – and does it across all video channels in one dashboard.

This idea is to select video-critical KPIs, combine them with your own metrics specific to your business, and present them in a clear, graphical way to generate insight and support fast action. Metrics might include things like:

- **Who's watching what**
- **Where they're watching**
- **Whether they're finishing each piece**
- **Where they drop out**
- **What channels work best**
- **The speed & quality of the video stream**
- **What actions viewers take after viewing**

Ideally, your video analytics will be integrated with your delivery platform so you can act immediately on the insights you harvest.

“Everyone is trying to figure out what is compelling to both advertisers and to users. We're experimenting with pre-rolls, post-rolls, 30-second ads, 15-second ads. We're trying different things. We're not going to wait on the sidelines and let other people figure it out.”

Matt Murphy, SVP of Digital Video Distribution, ESPN

# The trouble with silos

Video content owners and brand marketers with rich video portfolios struggle with the Five Big Challenges of online video distribution every day. And as channels multiply, so will the problems.

Unfortunately, many video-intensive brands attack the challenges one channel or one opportunity at a time. A new website pops up and needs feeding. So you build a delivery platform and workflow for it. Then mobile broadband and smartphones ramp up and it's time to build another. A games console company approaches you to develop a new channel for their platform. Start again.

Without a fully-integrated video delivery platform, each new opportunity needs its own technology stack, including:

- **Transcoding software & hardware – up to \$80k**
- **Workflow system – \$100k**
- **Digital Asset Management – \$130k**
- **Storage – \$60-100k**
- **Consulting and Integration – \$100k**

These costs don't even include the Content Delivery Network fees which can add up fast for popular services.

The bottom line: tech silos don't work. They cost too much, take too long to get your content to market and force you to integrate a bunch of point solutions over and over again. Not a sustainable or scalable solution.



# The need for a platform

The multi-channel video opportunity calls for new processes and a new kind of video operations technology.

It's a clear case for a single, centralised platform that solves all of the five big challenges in one, integrated solution that manages video delivery from start to finish.

The benefits of a platform approach are compelling for even the simplest operation:

**Drive down costs** – by combining silos, automating processes and minimizing errors

**Get to market faster** – without re-inventing the wheel for each opportunity

**Deliver higher-quality experiences** – by targeting content to the user's bandwidth and device, on-the-fly

**Reach the widest possible audience** – with simple connectors to new services

**Scale up to meet high-growth demand** – without sagging under the file sizes and number of files delivered.

**Re-use and revise workflows** – building best practice into the operation

**Bring visibility to the entire operation** – so you can see where content is, what's working and why

**Remove integration issues** – caused by stitching together point solutions not made for each other

An open, integrated platform is the natural choice for any operation supporting complex workflows, many services and a variety of business models in a dynamic, unpredictable market environment.

The idea is simple: streamline and automate processes; re-use technology and processes as much as possible; and retain flexibility to exploit new opportunities.

“The next thing is: How do you build a framework that enables cross-service compatibility? When we talk about interoperability, there's service interoperability and then there's device interoperability.”

Mitch Singer, The Digital Entertainment Content Ecosystem

# A managed service model

Video content businesses and brands that depend on video don't really want to be in the delivery business. They want to be in the content business (or the sports, automotive or movie business).

For most of these players, back-end video delivery is critical to the business but not a core competency. It makes sense to outsource it to experts and the managed service model is ideally suited to the task:

- There's no software or hardware to own, update and manage
- There's no capital expenditure driving down the threshold of viability for each new service and opportunity
- Upgrades are automatic with no disruption to the business

For these reasons, we believe the managed service model will ultimately come to dominate the online video distribution marketplace.

## What a managed service should look like

The most important features to look for:

- Comprehensive – reaching all users through all channels on all devices
- Supporting highest-quality video for each bandwidth
- Easy ingest and fast file transfer
- Rich asset management, tagging & searching
- Content validation built in to every step
- Highly automated workflows
- Highly configurable to support unique processes
- Service-oriented to de-couple content from delivery
- Enterprise-class – proven to be robust, resilient and scalable
- Built-in video analytics covering all channels in one view

A platform or managed service that falls short in any of these areas will ultimately constrain the business.

# Seizing the new video opportunities

Broadcast TV has lost its exclusive grip on delivering video to consumers. If you're a video-rich content business or a video-intensive brand, it's time to seize the day.

But you can't do this with silo-ised, point technologies and legacy thinking.

The new video landscape demands an operational platform designed to overcome the five big challenges facing every video content owner hoping to reach the widest possible audience.

But it's not enough to master all five challenges. You also need to do it fast. New opportunities open up nearly every week. If you're taking three to six months to address each one, you're out of the game.

For many (but not all), the answer will be a video delivery platform delivered as a managed service. Others may prefer to own the technology themselves.

Either way, the need for a centralised management and delivery platform optimised for fast, agile, multi-channel delivery has never been greater.

“The current move to online delivery is the best thing that happened to the media business.”

Avner Ronen, CEO, Boxee

“Mobile video usage will rise at a compound annual growth rate of 28% over the next five years. By 2014, more than 500 million users worldwide will subscribe to mobile video services.”

Pyramid Research, May 2009

# Resources

## **The Nativ blog**

Our thoughts on the state of the online video universe

## **BusinessofVideo.com**

Dan Rayburn's blog on the online video market

## **StreamingMedia.com**

The site for the online video industry

## **Beet.tv**

News and views on online video

## **NewTeeVee.com**

Following the video revolution

## **Contentinople.com**

A daily dose of the digital media industry

## **FierceOnlineVideo.com**

The world of online video

## **ReelSEO.com**

The online video marketer's Guide



# About Nativ

Nativ helps some of the world's biggest brands and content owners better exploit the new video era.

Our MioEverywhere™ platform and our fanatical commitment to service and support means our customers get their video to market faster, better, more flexibly and at lower cost than their competitors.

Some of the world's most successful content marketers and brands work with Nativ. Clients include:

BBC, Red Bee Media, iPlayer, MTV, Channel4, Turner Broadcasting, Sony, Getty Images, Audi, CBS Outdoor.

## Visit our website

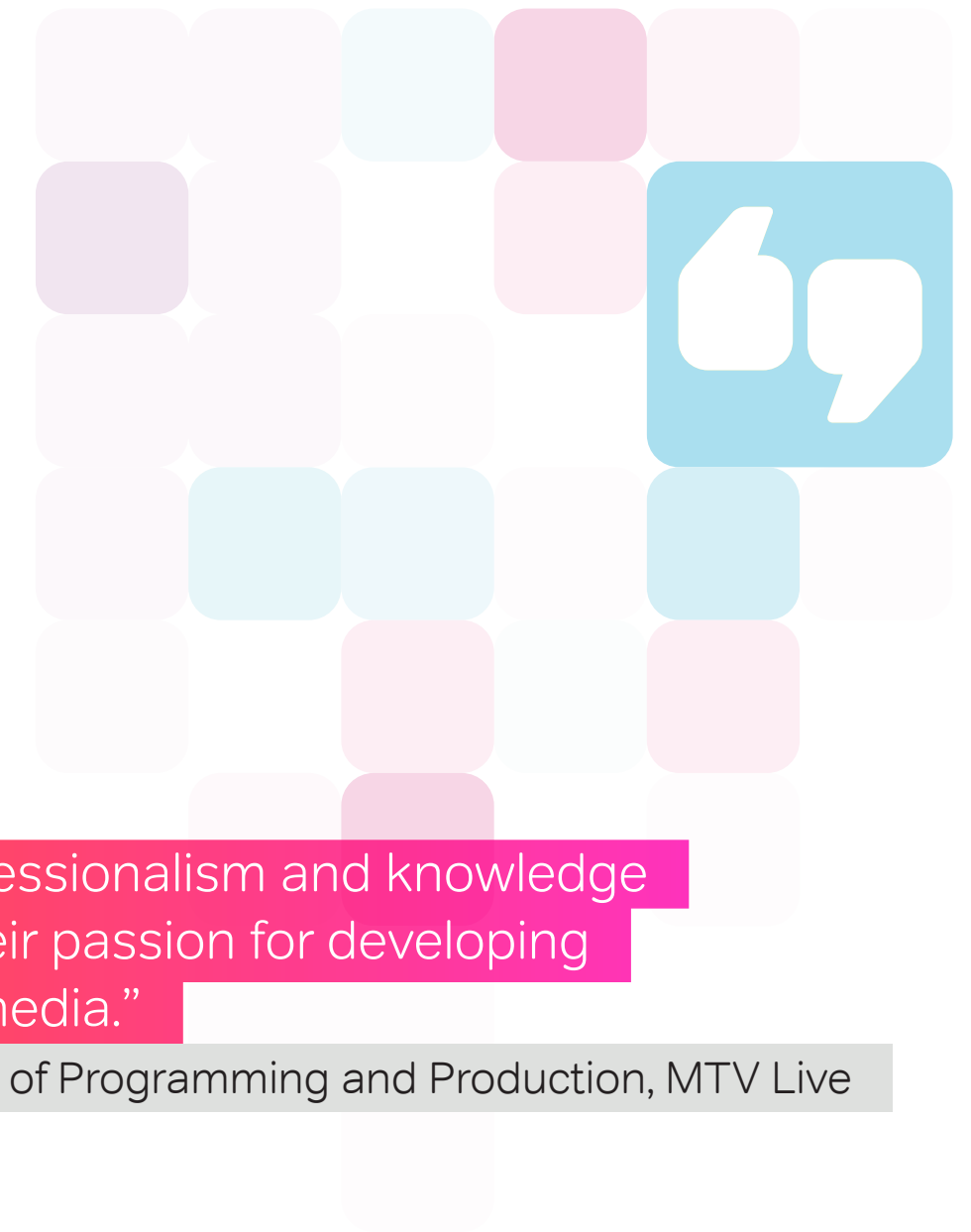
for an overview of the MioEverywhere™ platform

## Contact Us

for a quick web demo of the MioEverywhere™ platform

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“Their level of professionalism and knowledge is matched by their passion for developing the best in new media.”

Anthony James, Head of Programming and Production, MTV Live