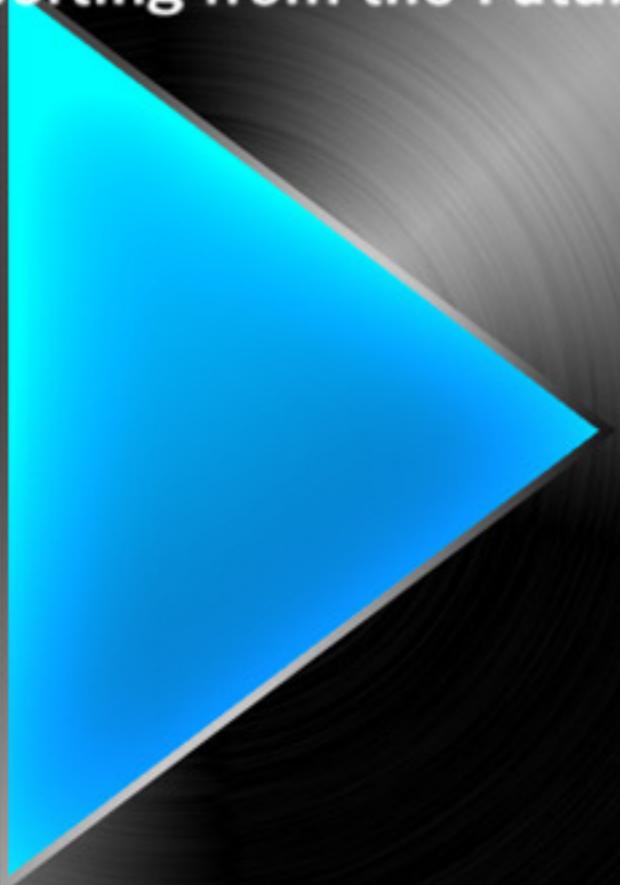




VOD PROFESSIONAL

Reporting from the Future of Television



LAUNCH ISSUE!

June 2011 | vodprofessional.com

"I'm a VOD professional!" says Asha Oberoi, Managing Director of ITN Source

Bismarck Lepe, CTO of Ooyala, on the new 4oD iPad app

IPTV is Dead, Long Live TVoIP
says Florian Pestoni, Principal Product Manager of Adobe Flash

The Data Sheet of a Data Centre
Exclusive photos from Level 3's European Headquarters

The People & Machines That Bring VOD to our Screens

Exclusive interviews with Channel 4, Virgin Media, ITN Origin Pictures, Limelight Networks, Brightroll, Level 3 Swan Turton & Edgeware Solutions

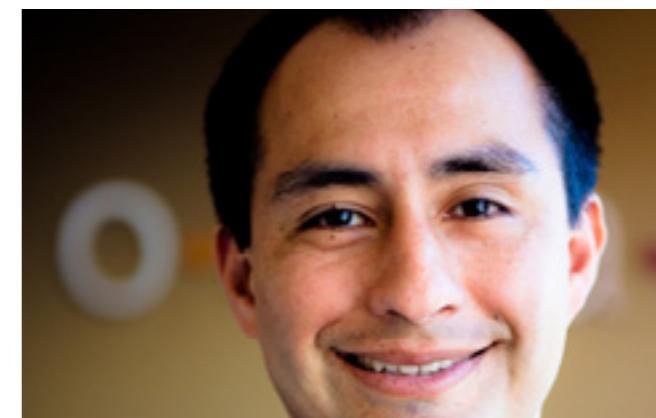
MONTH IN REVIEW

For this launch issue recap with not one but two months of industry news!

4



5



21

PRODUCT REVIEW

The 4oD iPad app

Bismarck Lepe, co-founder of Ooyala, talks about the new 4oD iPad app

21

COVER STORY

The People & Machines That Bring VOD to our Screens

The chain of events that gets a piece of content from production to a user's viewing device

23



23



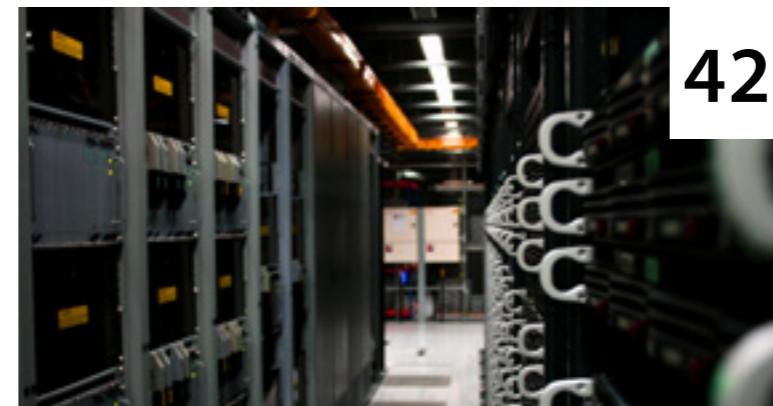
35

THE BIG INTERVIEW

Asha Oberoi, Managing Director of ITN Source

Her early days at the BBC, a career spanning PA and The Telegraph and the evolution of VOD over the past 10 years

35



42



59

THE DATA SHEET OF A DATA CENTRE

Exclusive photo tour of Level 3's London Data Centre

42

VOD Professional is a free monthly digital magazine distributed to over 23,000 people who work in video-on-demand and IPTV primarily across the UK and also Europe and the United States of America.

COMMENT

OpEd pieces from Florian Pestoni, Flash Access Product Manager at Adobe and industry analysts, Jane Seery and Benedict Evans

55

Editor: Kauser Kanji **Website:** built on Umbraco CMS by Oliver Wood **Contributors:** Benedict Evans, Jane Seery, Florian Pestoni **With Thanks:** to all the brilliant folks who participated in the making of this magazine and the website.

All images and photographs © VOD Professional 2011



Editor's Note

Does anyone ever read the 'Editor's Note' in a magazine? I confess, I usually skim over it and yet I now find myself in the interesting position of writing one. This is a new experience. And that's a sentiment I can repeat and apply to many areas of my life in the past 3 months.

Once upon a time I used to be a regular contract VOD project manager. I helped set up live and catch-up horseracing on the internet in 2006 with the Racing Post, I was a Head of Online at NBC Universal in 2008 and, following a 9-month stint with ITN, I looked after the Virgin Media Player for a while last year. Normally between jobs I take a couple of months break and then start applying for roles again. This time round some new wildly optimistic spark took hold and the idea of creating a dedicated trade magazine for colleagues in video-on-demand and IPTV was born and developed.

And this first issue of VOD Professional really is about the people who work in our industry. As a PM, one of the things that amazed me was how so many different teams are involved in the process of getting a piece of content online. You'll know that it's not so easy! An asset has to be received from the originator, run through legal checks for when and how it can be broadcast, get ingested, stored and transcoded into the necessary formats, have metadata added to it, be scheduled for release and finally be presented on a website or an EPG, delivered to disparate devices and monetised. That's potentially hundreds of people each adding value in a long chain of events. We celebrate the vital contribution of some of these individuals in our cover story.

Later, we have a genuinely fascinating interview with Asha Oberoi, the Managing Director of ITN Source, who talks about her experience of the early days of video-on-demand with the BBC plus an exclusive photo tour of Level 3's main data centre in London. We also have comment pieces from Florian Pestoni, the Product Manager for Adobe Flash and a couple of analysts: Jane Seery who writes about video on Facebook and Benedict Evans who challenges, as usual, the big players to do better.

So we have the content and the circulation - over 23,000 contacts will receive an invitation to read this launch issue - but what about the presentation? That will get better and more varied. Already, you should be able to read this magazine as a PDF and as individual stories on our website and we plan to launch an iPad version later in the year.

In the meantime, if you want to get in touch, please drop me a line via the contact form on the website or tweet me @vodprofessional. Next month's edition is about 'Monetisation' so I'd particularly love to hear from you if you'd like to contribute.

So, that's my first editor's bit done. Hooray and a small whoop.

Thanks to all of the excellent people who helped bring VOD Professional into the world and I hope you enjoy it.

Kauser Kanji

BBC iPlayer Figures: May 2011

The BBC has released its latest iPlayer usage figures for May 2011 and, as usual, they make for interesting reading.

There were 159 million TV and radio requests over the month of which 97m were for online TV, 25m for Virgin Media cable TV and 37m for radio. This compares to only 141 million requests in April. The week of 9th May delivered a new record of 7.2 million online users in one week (excludes Virgin Media cable).

The return of popular programmes like 'The Apprentice' and 'Doctor Who' plus one-off events like the Eurovision Song Contest explains much of the uplift in numbers. New dramas 'The Shadow Line' and 'Exile' were also in the top 20 most-requested video assets.

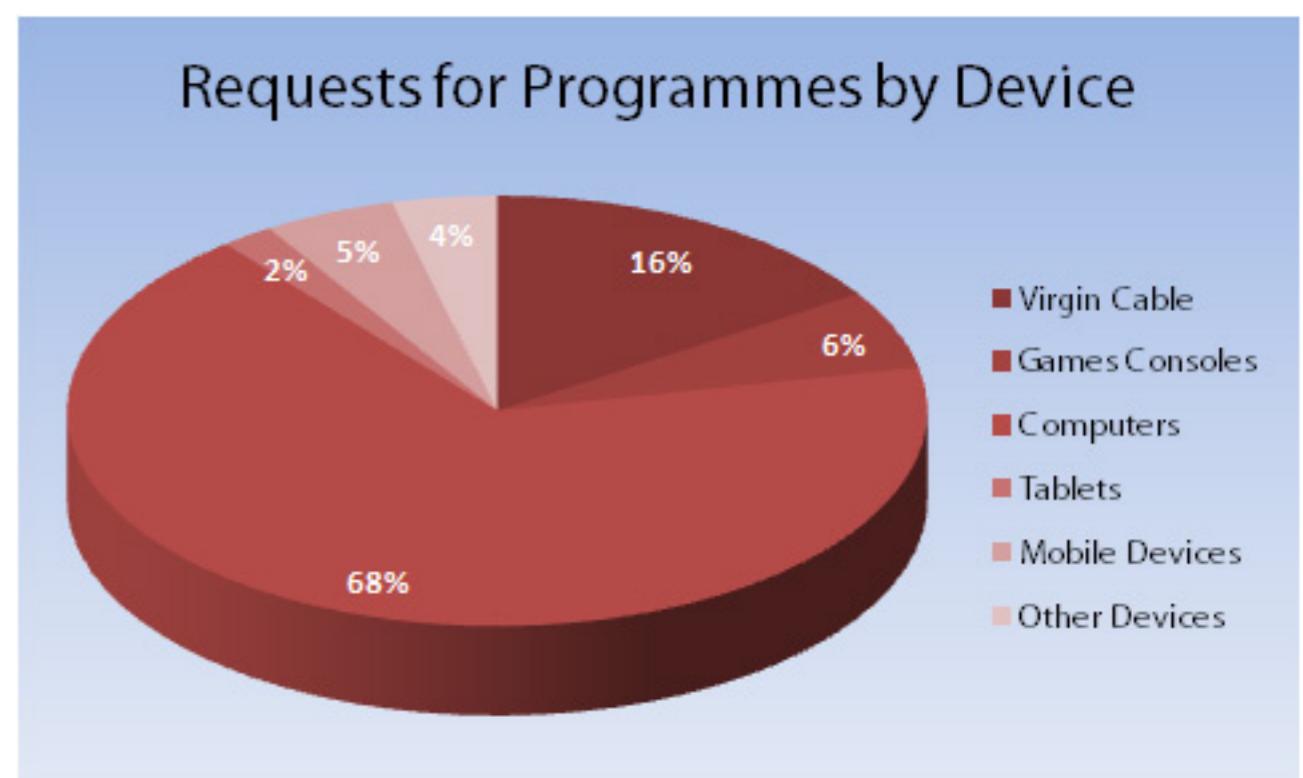
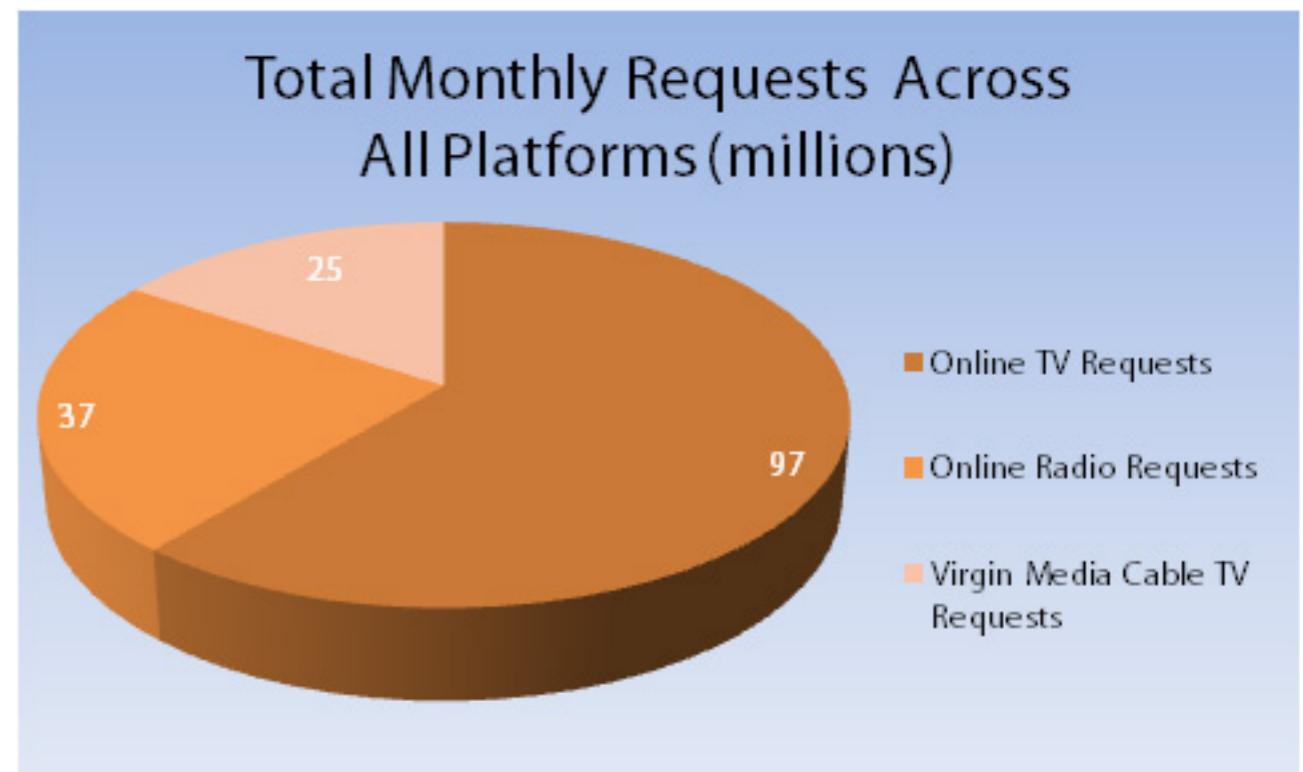
Viewers are still mostly watching the iPlayer on their computers (68% of all requests) and mobile, tablet and games console access remain steady at 5%, 2% and 6% respectively.

Daily TV requests were up 300,000 from April to an average of 3.1 million per day and these were served to 1.6m unique users (up from 1.5m users per day in April).

The use of the iPlayer as a digital radio service is noteworthy: in May there were almost double the number of radio minutes served (149 minutes per user per week) than for television (76 minutes). Peak radio listening on the iPlayer occurs between 11am and 12pm. Conversely, peak TV-viewing is between 9 and 10pm coinciding with the linear television peak audience.

Live TV viewing via BBC iPlayer makes up 14% of all TV requests. 57% of all users are men and 44% of all users are aged between 15-34.

You can download the full BBC iPlayer May 2011 report [here](#).





72m Live Streams for Royal Wedding on YouTube

The Royal Wedding was streamed live 72 million times around the world to 188 countries on YouTube says the company's blog website. In total, YouTube delivered over 100m streams on the day.

During the 10 seconds around the highly-anticipated Royal kiss, the YouTube channel site, powered by Google App Engine, experienced an additional 100,000 requests on top of the already high load - an effective additional 10,000 requests per second.

Live streams were highest in the UK and the US followed by Italy, Germany and France. The entire live stream of the Royal Wedding, along with video highlights can be found on YouTube's Royal Channel.

Meanwhile, 34 million of us caught at least some of the event on terrestrial TV. The BBC said a peak figure of 20m - a 70% share - tuned into the corporation's coverage at the end of the service in Westminster Abbey. This included viewers watching BBC One, BBC One HD, the BBC News Channel and iPlayer.

9 million users read about the ceremony on the BBC News website with a further one million visitors logging on to the Sky News website. Although ITV only reached a peak of 6 million viewers its presentation won plaudits from the British broadsheet press.

Hulu for Sale?



Is Hulu for sale? Feverish speculation hit the US newswires in mid-June as reports emerged of an unsolicited offer to buy the giant OTT video-on-demand subscription service. The Wall Street Journal broke the story and was quickly followed by the Los Angeles Times which identified Yahoo as the potential purchaser.

Hulu, which launched in 2008, streams television programmes and movies to users exclusively in the United States. It's jointly-owned by NBC Universal, Disney-ABC and Fox Entertainment Group.

Usage statistics for the site are in dispute: Nielsen's May 2011 figures suggested that Hulu had 14.6 million unique viewers. ComScore however reported 28.5 million unique viewers in the same period. Either way, the company's CEO, Jason Kilar, has forecast \$500m revenue this year (mainly in ad sales) up from \$263m in 2010.

Hulu's blog site has remained quiet on any impending sale.

www.hulu.com

iPlayer Launches on BT Vision



BT Vision customers can now watch their favourite BBC shows on demand, using the new BBC iPlayer on their TVs.

The launch of BBC's on demand service gives Vision customers the opportunity to enjoy more than 400 hours of their favourite BBC TV programmes, including The Apprentice, EastEnders and Top Gear, and more than 1,000 hours of radio programmes.

This replaces the smaller selection of BBC programmes previously available on BT Vision's TV Replay service, which still offers Vision viewers the chance to catch up on programmes they have missed on other channels through ITV Net Player, 4 on demand and Demand 5. There is no charge to customers for watching shows through BBC iPlayer on BT Vision.

BT Vision gives customers up to 50 Freeview television and 20 radio channels as standard and lets them pause, record and rewind live TV. Customers can catch up with the best of the last seven days' TV from BBC, ITV, Channel 4 and Channel 5 and watch thousands of US and UK TV shows, blockbuster and classic films, kids' shows, music videos, and sport on demand. BT Vision also offers Sky Sports 1 and Sky Sports 2 plus ESPN and films in HD and 3D.

www.btvision.bt.com

The World's Leading CDN Event Now In Its 3rd Year

51%
Service Provider
Attendance
in 2010

3rd ANNUAL

CDN world summit

Monetising the international operator opportunity in the CDN market



Featuring Special Focus Day:

25th October 2011

www.cdnworldsummit.com/mobilecdn

WHEN YOU LEAVE CDN WORLD SUMMIT 2011 YOU WILL BE EQUIPPED TO:

- Work with network owners and broadcast over-the-top (OTT) providers to monetise video and other bandwidth-hungry Internet content
- Review the latest traditional CDN services from operators and radical new offerings from the likes of BT and Telefonica
- Collaborate effectively with content providers to drive revenues and beat competition
- Determine the impact of the net neutrality debate on successful business models
- Convince content providers about the commercial value of QoS
- Understand the latest CDN 2.0 innovations to enable intelligent distribution in real time

THE CDN WORLD SUMMIT IS THE RECOGNISED PLATFORM FOR STRATEGIC DECISION MAKING ON CDN, MAKE SURE YOU TAKE THIS OPPORTUNITY TO:

- Network with over 400 senior CDN professionals
- Learn from 80 plus industry expert speakers
- Get the most comprehensive understanding of the CDN industry
- Benefit from the only event that focuses on the Telco CDN opportunity
- Attend the only event with a focus on Mobile CDN
- Visit the dedicated CDN focussed exhibition
- Participate in 14 lively and interactive panel discussions

HALF PRICE FOR TELCOS

"In my opinion, this is THE major event in the CDN space"

Bernhard Brodesser, Consulting Systems Engineer, Cisco Systems

Register online at www.cdnworldsummit.com

Diamond Sponsor:



Platinum Sponsor:



Gold Sponsors:



edgeware

JUNIPER NETWORKS

broadpeak

Saguna Networks Ltd.

Silver Sponsors:



edgecast

HIGHWINDS

PeerApp

SKYTIDE

Intelligence Provider:



Associate Sponsor:



Host Operator Partner

BT wholesale

Over 80 Speakers:

40 Content and CDN Service Providers

Content Providers & Broadcasters



Maria Ingold
Head of Technical Operations
FilmFlex Movies, UK



Peter MacAvock
Programme Manager, Technical Dept
European Broadcasting Union, Switzerland



Richard Cooper
Controller, Digital Distribution
BBC, UK



Steve Bennedik
Head of Technology
SkyNews, UK



Mark Hewis
Technical Architect
LoveFilm, UK



Tim Wright
VP Technology
Sony Pictures Entertainment, UK

All the Global Telco CDNs...



Sam Farraj
Head Content Delivery
AT&T, USA



Cameron Rejali
MD Products and Strategy
BT Wholesale, UK



Jacob Rosenberg
Product Engineering
Comcast, USA



Dominique Delisle, Programme Director for Content & Services Transformation
Orange - FT, France



Justin McAleer
Head of Strategy
TeliaSonera International Carrier, USA



Moray Barclay
Strategy and Innovation Manager
Deutsche Telekom, UK



Derek Gough
Director, CDN Product Management
Level3, Ireland



Marcin Pilarski
Expert R&D
Polska Telekom, Poland



David Meredith
Head of Consumer Innovation
Talk Talk, UK



Paul Larbey
President
Velocix an Alcatel-Lucent Company, UK



Robert Kevork
Associate Director – Marketing
Bell Business Markets
Bell Canada



Kip Compton
Senior Director, Strategy & Product Management, SPVTG, **Cisco, USA**



Brian Joe
Senior Planner
Verizon, USA

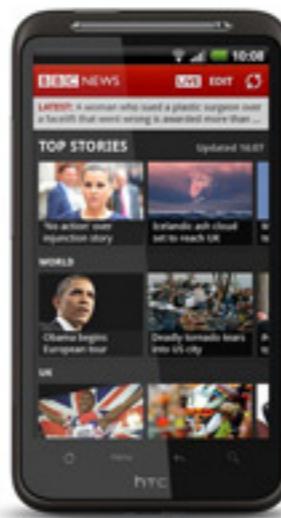


John Watson
Executive Director
AT&T Digital Media Solutions, USA

BBC News app Launches on Android

The BBC has launched its News app on Android for the first time. The free app, which has been live on iPhone and iPad devices since last July, has been downloaded over 6 million times and attracted a record 540,000 UK users around the death of Osama Bin Laden and 376,000 UK users on the day of the Royal Wedding.

The app's video experience is accessible to both Flash and non-Flash enabled devices. In-story video is supported on Android devices versions 1.6 and above, and live streaming of the BBC News channel is possible on versions 2.2 and above which run Flash.



Tesco buys 80% Stake in Blinkbox

Supermarket giant, Tesco, has acquired a majority shareholding in video-on-demand pioneer, Blinkbox.

Blinkbox is one of the UK's leading movie streaming services, offering an extensive library of films on the internet to 2m users each month. Their catalogue of more than 9,000 titles is available to rent or buy, alongside a host of free-to-view movies, TV shows and trailers, on PC, Mac, PS3 consoles, tablet devices and internet-enabled connected TVs.

<http://www.blinkbox.com/>

Sky Rebrands Online and Mobile Service, Offers More Channels

From next month, all Sky TV customers will be able to watch Sky channels and programmes on PCs, laptops, mobiles and tablets at no extra charge.

'Sky Go' is the rebranded name for the newly-amalgamated Sky Player and Sky Mobile TV. It provides access to Sky linear and VOD content across multiple devices including the iPhone, iPad, PC and Mac.

Each Sky customer will be entitled to register up to two devices through which they can enjoy access to live channels and selected on-demand content.

Sky Go will be available from August to non-Sky TV customers, with monthly subscriptions priced from £15-£40. Sky will also remain available on Xbox and Fetch TV, but will rebrand simply as Sky instead of Sky Player.



In time, Sky Go will be supported by Sky's acquisition earlier this year of The Cloud, a leading public Wi-Fi network that offers wireless access in over 4,500 public locations - across coffee shops, hotels, restaurants, transport hubs and other public spaces. Further details on the roll out of the network will be announced in due course.

Nielsen Launches UK's First Industry-Endorsed Video Measurement Tool

In May 2011 the UK got its first tool to accurately measure how people consume, and engage with, Internet video content with the launch of the Nielsen VideoCensus.

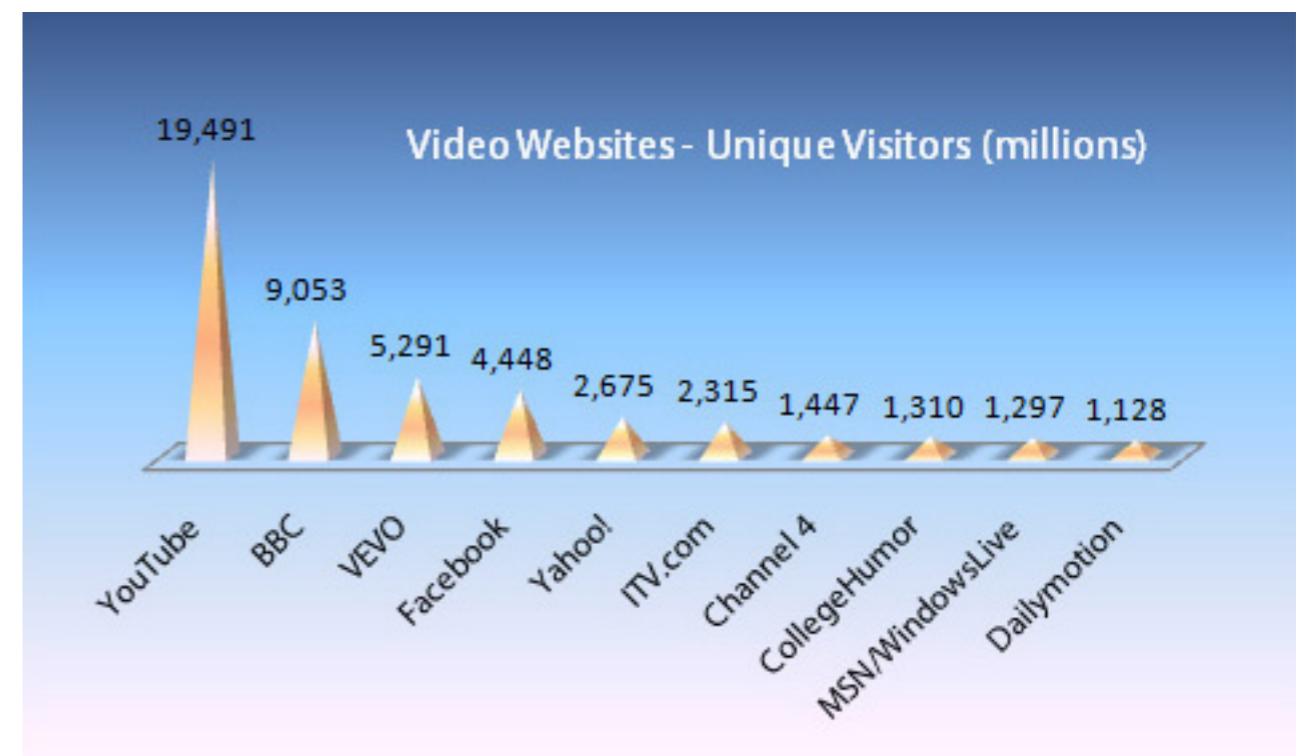
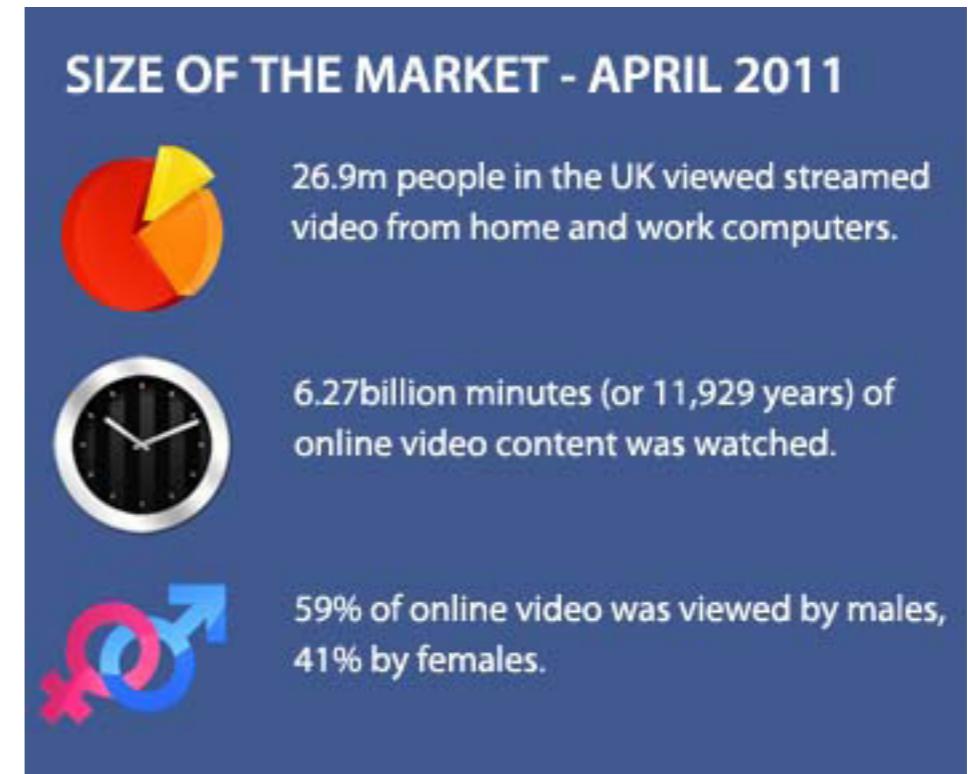
Nielsen VideoCensus allows media owners and advertisers to gauge the size and demographic composition (age, gender, etc.) of audiences viewing video online, across the entire web and for specific sites. It also produces metrics like the total number of videos viewed and the average time people spend doing this.

The newly available data shows that 26.9m people in the UK viewed streamed video from home and work computers in April 2011. It also shows that YouTube is the most-popular site for watching video content, with 19.5million unique UK viewers last month, followed by the BBC website (9.1m), VEVO (5.3m) and Facebook (4.4m).

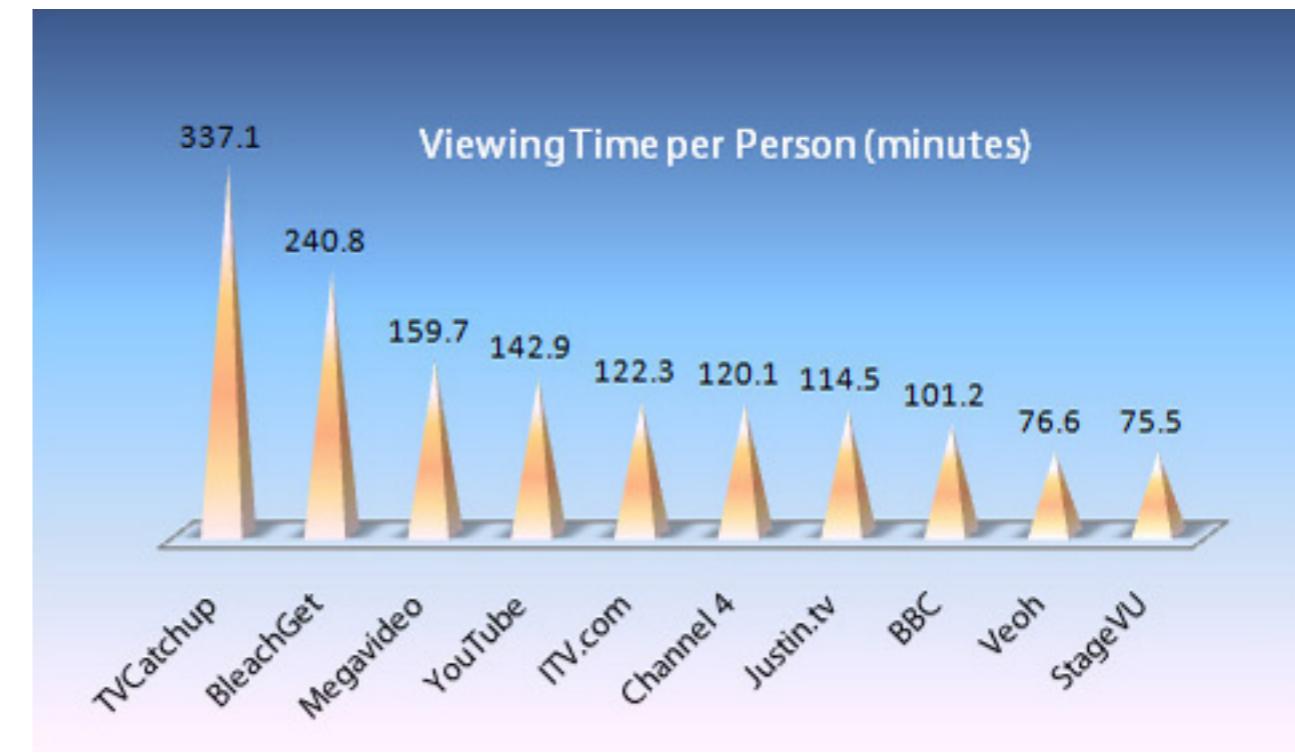
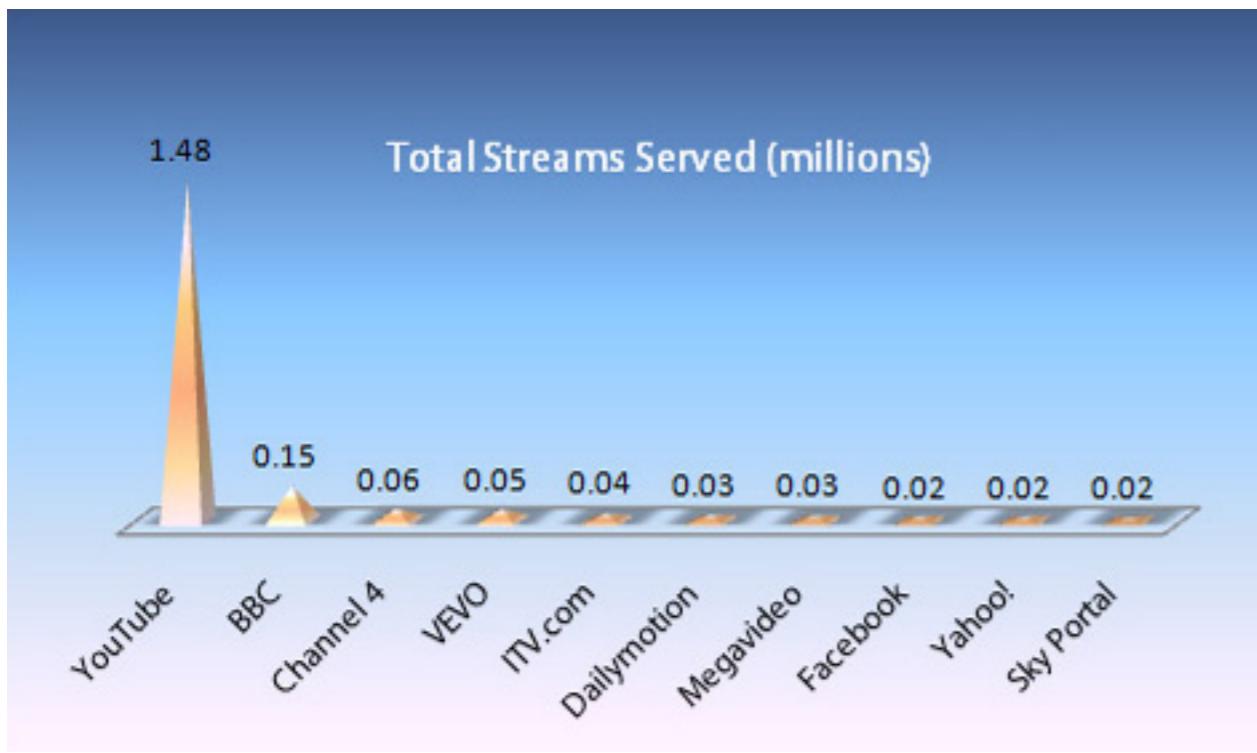
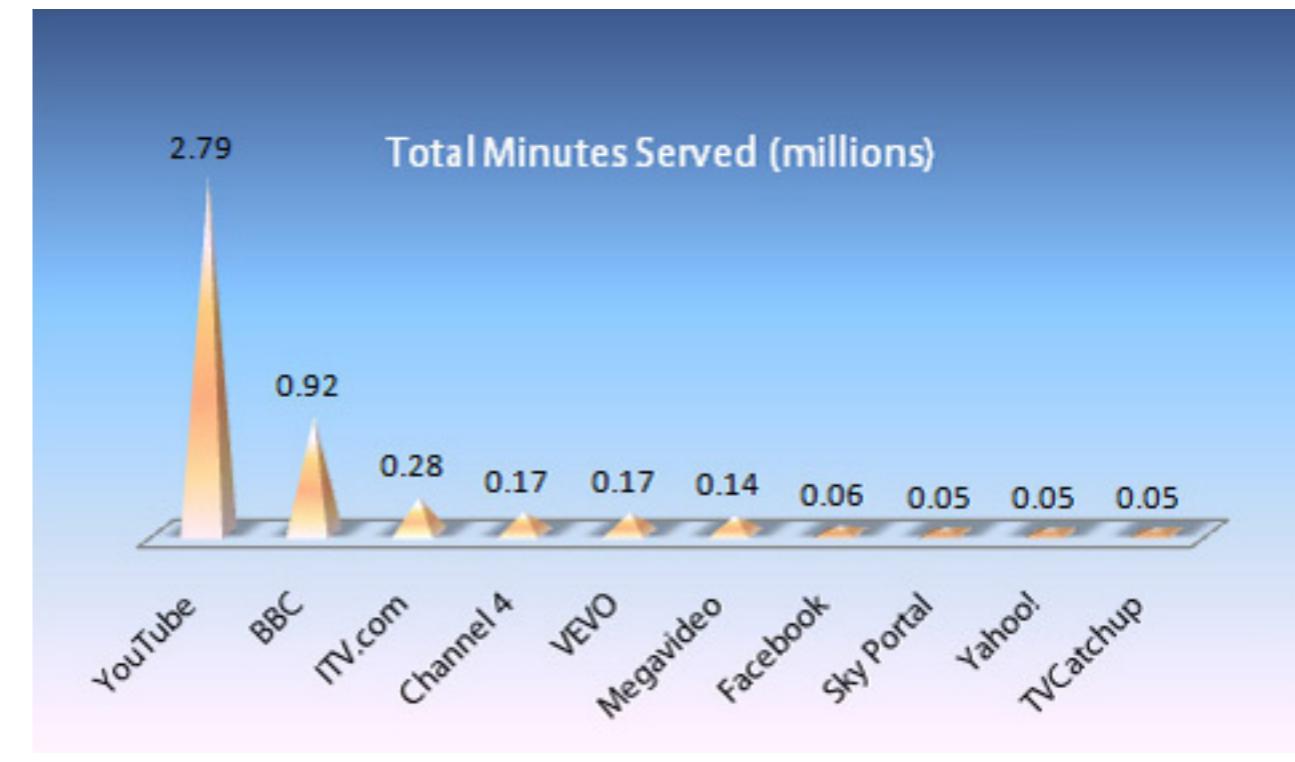
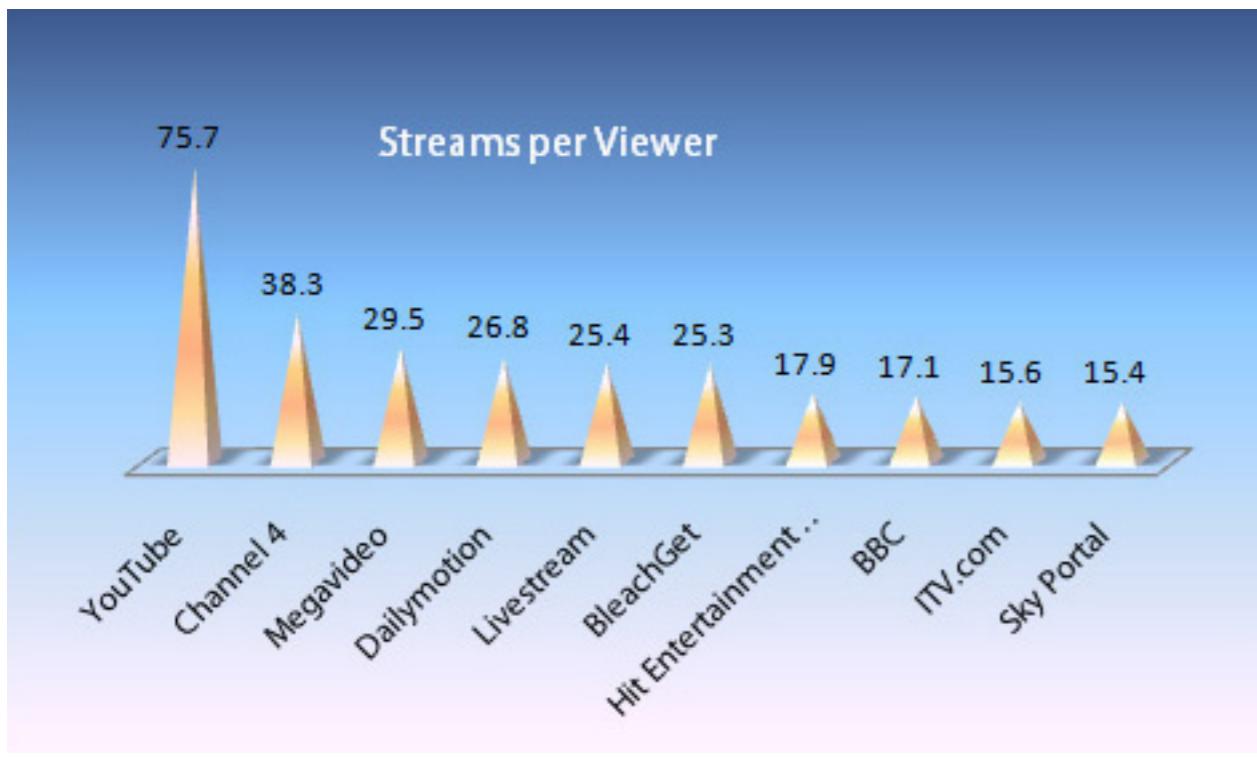
Significantly, Nielsen VideoCensus will be the first industry-endorsed online video measurement tool in the UK. Accredited by UKOM - the UK Online Measurement company run by the Association of Online Publishers and the Internet Advertising Bureau, with oversight from Society of British Advertisers (ISBA) and the Institute of Practitioners in Advertising - Nielsen VideoCensus is aiming to become the UK's industry-approved product for online video measurement from July 2011 onwards.

Prior to launch, UKOM and its industry-wide Technical Group scrutinised Nielsen VideoCensus at length, with the product undergoing extensive technical due-diligence, auditing, and review before receiving UKOM's endorsement.

Here's a snapshot of the recently-released data:



Nielsen Launches UK's First Industry-Endorsed Video Measurement Tool



Lovefilm & Disney Extend Streaming Deal to Germany

LOVEFiLM and The Walt Disney Company Germany have signed a Transactional Video on Demand (TVOD) and Subscription Video on Demand (SVOD) feature film streaming deal.

German members of LOVEFiLM - Europe's largest subscription service, streaming movies and TV episodes over the Internet and sending DVDs by post - will be able to rent and stream a selection of titles from The Walt Disney Company's portfolio of movies. The German deal comes after LOVEFiLM became Disney's first major UK SVOD provider outside of the Pay TV window in April of this year.

The agreement will see more than 70 films from Disney's library become available to German subscribers of the LOVEFiLM service paying €7.29 a month or more at no extra cost, including Pirates Of The Caribbean: Dead Man's Chest, The Chronicles of Narnia: The Lion, The Witch And The Wardrobe and The Hitchhiker's Guide to the Galaxy.



Recently released Disney titles, such as TRON: Legacy, Tangled and I Am Number Four, will be available for members to watch online instantly on LOVEFiLM's premium pay-per-view service. The likes of Gnomeo And Juliet, Pirates Of The Caribbean: On Stranger Tides and Cars 2 will follow throughout 2011.

In separate announcements, LOVEFiLM said that the partnership with Disney had been extended to allow German customers to stream content through Sony Playstation 3 consoles and via Sony Bravia Internet Video TVs, Blu-ray players and Blu-ray Home Theatre kits.



Tweets of the Month

Great quote just heard - "Only the paranoid survive - Andy Grove, former Intel CEO

@emmabarnett (21 Jun)
Digital Media Editor, Daily Telegraph

Dear Google apps team - you have driven me to start evaluating Microsoft Office 365.
I hope you're proud.

@benedictevans (7 Jun)
Consultant, Enders Analysis

It's going to be 100 degrees in NYC tomorrow.
Who wants to go skydiving with me? We can discuss business and call it work-related.

@petershankman (8 Jun)
Social Media commentator and skydiver

A Reprieve for SeeSaw?

SeeSaw, the OTT Video-on-Demand service, may have found a last minute buyer in the social networking site, Bebo. Earlier reports had suggested that the company was about to fold after its owner, Arqiva, was unable to find new investment for the project.

SeeSaw launched in February 2010 with over 3,000 hours of TV content from the BBC, ITV and C4. In later deals with NBC Universal and MTV it added premium, paid-for assets including shows like House, Grey's Anatomy and Rome. It still couldn't compete with the broadcaster's own VOD services however and had struggled to build up enough of a paying audience to keep the service going.

www.seesaw.com

Android Overtakes Apple in US Smartphone Market

Smartphones and the consumption of mobile data continue to grow in popularity in the US - 37 percent of mobile consumers now have one - and Google's Android operating system is proving to be the most popular.

According to Nielsen's April survey of mobile consumers, 36 percent of smartphone consumers now have an Android device, compared to 26 percent for Apple iOS smartphones (iPhones) and 23 percent for RIM Blackberry.



Comcast Announces 20-Billionth VOD View

The USA's biggest cable company, Comcast, celebrated the viewing of its 20-billionth on-demand video since the service launched in 2003.

"On Demand was the first technology to give millions of our customers instant access to entertainment choices to watch on their schedule," said Marcien Jenckes, Senior VP and General Manager of Video Services, Comcast. "By making a huge library of content available for free with a click of the remote, On Demand was an instant hit and continues to drive viewership. The service has been a major influence in the adoption of time-shifted viewing, which has now become mainstream."

Akamai Has 'Largest-Ever' Month For Video Streams

Akamai, together with AEG Digital Media, announced that it had delivered almost 170 million streams and more than 2,400 terabytes across the Akamai HD Network in April making it the largest month ever for events enabled across the two companies' platforms.

As we reported earlier in this section, the Royal Wedding accounted for 72m of those streams but other US-based events also pulled in the viewers. The Grammy's, for example, was watched by 3.8 million fans. The webcast for a music and arts festival, Coachella, led to a further 4m streams.

Germany Leads Europe in Online Video Viewing

New data from comScore's monthly Video Metrix analysis reveals that Germans watch more online video than any other Europeans: almost 20 hours per viewer per month.

Germany reports 45 million unique viewers watching an average of 187 videos for 19.6 hours per viewer in April. Turkey, with 20.7 million viewers overall, ranked second in terms of engagement with 169 videos viewed for an average 18.7 hours per viewer. The UK emerged as the third strongest online video market with 166 videos watched for 17.0 hours on average per viewer.

Online Video Viewing, Europe

April 2011 | Home & Work locations | Audience aged 15+

Country	Videos per Viewer	Hours per Viewer	Unique Viewers
Germany	186.9	19.6	44.93m
Turkey	168.6	18.7	20.73m
United Kingdom	166.4	17.0	32.39m
Spain	150.9	18.4	18.90m
France	131.2	12.8	38.66m
Italy	114.8	12.8	18.69m
Russia	86.8	9.7	39.84m

Source: comScore Video Matrix

Google Sites, largely driven by viewing at YouTube, ranked as the leading online video property among all European markets reported in Video Metrix, with the exception of Turkey, where Facebook was the market leader. Facebook is increasing viewership in most countries, and ranked in the top 3 online video destinations in five out of the seven reported European countries. Local online video destinations also ranked among the top 3 in Germany (ProSiebenSat1 Sites), the UK (BBC Sites), France (Dailymotion.com) and Russia (Mail.ru Group). Across markets, Vevo's videos were largely consumed via their YouTube channel.

Top 3 Video Properties, Europe

April 2011 | Home & Work locations | Audience aged 15+

Country	Top Properties #1	Top Properties #2	Top Properties #3
France	Google Sites	Daily Motion	Facebook
Germany	Google Sites	ProSiebenSat1 Sites	Facebook
Italy	Google Sites	Facebook	Vevo
Russia	Google Sites	Mail.ru Group	Gazprom Media
Spain	Google Sites	Vevo	Facebook
Turkey	Facebook	Google Sites	Daily Motion
United Kingdom	Google Sites	BBC Sites	Vevo

Source: comScore Video Matrix

IPTV Subscriptions to grow to 70 Million by 2014

A report on the top 75 media economies across North America, Latin America, Europe, the Middle East and Asia Pacific by media information provider SNL Kagan, suggests strong growth prospects for IPTV. The analysis notes that IPTV adoption has increased at a 92.4% compound annual growth rate over the past six years and forecast that over the next four years:

- Western Europe will continue to lead the world in IPTV subscriptions, reaching 26.7 million households by 2014.
- China will become the second largest IPTV market, reaching 12.4 million IPTV subscribers by 2014 and pushing the U.S. into third place.
- Latin America and Eastern Europe will see subscriber increases at respective 114% and 24.4% compound annual growth rates between 2010 and 2014.
- IPTV video service revenues will grow from \$12.9 billion in 2010 to \$27 billion in 2014, equal to 11% of global pay-TV revenues.

The global move towards IPTV service adoption is being driven by a handful of telcos, with the top five operators accounting for 44.3% of the global IPTV subscriber base at year-end 2010. In the UK, BT is well-positioned for strong growth due to its adoption of an innovative hybrid IPTV/DTT technology that leverages the UK's popular Freeview DTT service.

Julija Jurkevic, Media and Comms Analyst at SNL Kagan, commented: "Although IPTV presently accounts for just 6% of the world's pay-TV subscribers, the platform is fueling hyper-competition and video service innovation in major markets globally. Telcos often provide the spark igniting consumer interest in multi-screen services, HD and VOD, generating in parallel support for investment in next generation broadband networks."

<http://www.snl.com/>

The World in 2015

7,208,837

Global population according to the United Nations & Office of Economic Co-operation & Development.

15 BILLION

The number of connected devices in the world - more than 2 per person.

3 billion

Internet users. Less than half the world.

966 EXABYTES

Total amount of internet traffic - quadruple the 2011 projected figure.
1,000 exabytes = 1 zettabyte.

1 MILLION

Video minutes served per second.

SOURCE: CISCO VISUAL NETWORKING INDEX
(VNI) FORECAST 2010 - 2015

US Video Advertising Giants Open Offices in the UK



Two of the USA's leading video advertising networks have set up new European headquarters in London. **Brightroll**, the larger of the two companies, came first in April with **YuMe** following in June.

Speaking to VOD Professional, **Brightroll's MD of Europe, Phil Cooper**, said that the reason for the expansion was simple:

"The UK, as we see it, is the prize market in the EU for video advertising. It's the largest feasible territory. The IAB (Internet Advertising Bureau) valued the UK video ad market at £50m in 2010 but if you include short-form and mobile it's probably worth more like £100m."

And what makes Brightroll different to the companies already in this space?

"Partly our products. As well as our pure video advertising network, Brightroll also runs a video ad exchange which is a bit like Google's ad exchange. It's auction functionality which allows advertisers to gauge exactly the cost of an impression and a campaign and which lets publishers achieve the highest CPM.

Brightroll has grown from zero to being the biggest in the US by being honest, transparent, with great products, great customer service and by investing in R&D. The self-service vs. managed



service options mean that we're well equipped to compete. Plus we have superb staff who come from the UK industry so there shouldn't be any lag while we're getting up to speed with the unique, UK-based needs of our clients."

YuMe coupled the announcement of their new UK office with the news that it had acquired **Appealing Media**, a mobile video advertising company serving customers such as ESPN, IPC Media, Bauer Media, and Universal McCann.

Already a well-known name in the UK market, **Appealing Media** brings seasoned executives and tested technology to YuMe.

"Mobile video is clearly a growth market and by joining YuMe we are increasing our offering for the UK market considerably – both to other publishers but also to other platforms such as online and TV," said Owen Hanks, founder and CEO of **Appealing Media**. "We are committed to simplifying these complex cross platform campaigns for brands across Europe."

"As smartphone and tablet adoption takes off, the mobile video market will grow considerably both in complexity and reach. And the advertising on these platforms needs to be relevant and smart, especially for premium brands," said Michael Mathieu, CEO of YuMe.

SMART VIDEO ADVERTISING

BrightRoll UK

• San Francisco

• Los Angeles

• Dallas

• Tampa

• Boston
• Detroit
• Chicago



Daily Campaign Flights Launching from London - Have You Booked Yours?

BrightRoll, the leading pure video online advertising network is now available in Europe.

We are pleased to announce the launch of **BrightRoll Europe** headquartered from London, already offering you up to 10 million UK users watching more than 100mn streams across fully disclosed site lists.

Find out how our market leading VAST and VPAID compliant products can be used across our network to target users by site, user demographic, context or keyword, deploying pre or post buy with research validation.

For Further Information

Sales - Richard Parboo- 0207.550.5588 - richard@brightroll.com

Publisher - Leon Siotis - 0207.550.5583 - leon@brightroll.com

BrightRoll.com

BROUGHT TO YOU BY:

BrightRoll
oooooo

Study Shows Viewers Are More Attentive to Online Video Ads

A fascinating study by video advertising network, YuMe, and IPG Media Labs has revealed that viewers are almost 10% more attentive to online video ads than they are to regular TV versions. Viewers also remember online video ads twice as much as their TV counterparts.

In their whitepaper, 'Advertising In The Wild', YuMe and IPGML posed the following questions:

- Do people pay attention to online video differently than they do when watching TV?
- If people have the option of avoiding advertising, will they?
- What are the qualitative and quantitative differences between TV watching and online video watching?



Using facial tracking algorithms and biometric monitoring, a second-by-second monitoring of cognition, excitement and stress found that despite constant distractions in both mediums, online video commands higher attention and recall from viewers.

Based on the trial, researchers concluded that online video ads have 20 percent more attentive impressions than TV ads. Although fast-forwarded video ads, such as those recorded on a DVR, achieve little recall, ad fast forwarding accounts for only a small amount of wasted ad impressions. A larger factor in the relative ineffectiveness of TV advertising is the familiar cadence of TV content, which increases drop-off to ads compared with online video.

The key findings of the study included:

- Viewer distraction, most commonly in the form of smartphones—which are “a persistent companion to video content” - reduce attention to ads for both TV and online video
- Versus online video, TV has three times the drop in attention from content to ad
- 63 percent of TV impressions were ignored
- Online video content gets 8.5% more attention than TV and online video ads have 18.3% more fully attentive viewers than TV ads
- Online ads have 1.8x the aided recall and 1.5x the unaided recall of TV ads
- TV viewers are exposed to nearly twice as many video ads as online viewers

www.yume.com/content/ipg-media-lab

MONTH IN REVIEW

Ofcom Reveals Mobile Broadband Speeds

In May 2011, Ofcom published its first research into the performance of mobile broadband across the UK. The study involved over 4.2 million tests and looked specifically at the performance of mobile networks using dongles and datacards but not smartphones. It measured average speeds as well as the performance of the five mobile operators in areas of good 3G network coverage.

O2 was revealed as the fastest overall operator with average download speeds of between 2.4 Mbits/s to 2.9 Mbits/s. Orange was the slowest with 1.1 and 1.4Mbits/s speeds.

	Avg Download Speed	Load Webpage
Mobile Broadband	1.5 Mbits/s	8.5 seconds
Good 3G Coverage	2.1 Mbits/s	2.2 seconds
Fixed Broadband	6.2Mbits/s	<0.5 seconds

Operators in Order of Speed

	Low Avg Download Speed	High Avg Download Speed
O2	2.4 Mbits/s	2.9 Mbits/s
Vodafone	2.2Mbits/s	2.7 Mbits/s
3	2.1Mbits/s	2.4 Mbits/s
T-Mobile	1.7 Mbits/s	2.1 Mbits/s
Orange	1.1 Mbits/s	1.4 Mbits/s

Mobile broadband performance is likely to remain significantly below fixed broadband performance until the rollout of additional spectrum for 4G mobile services in the UK which is expected to begin in 2013.

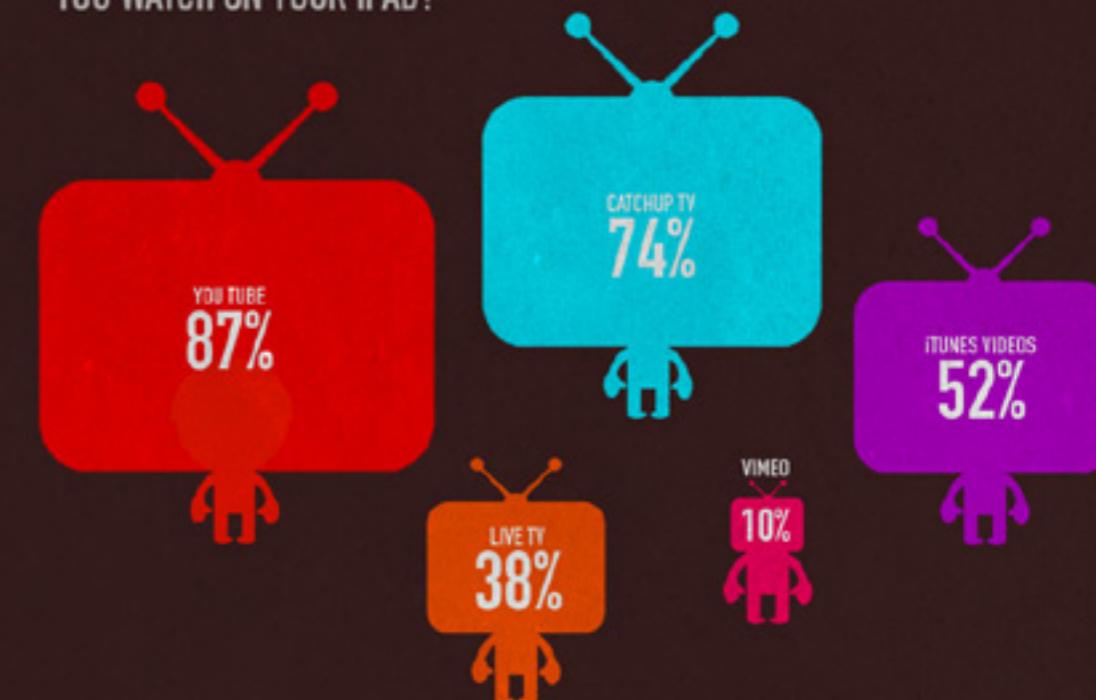
The full Ofcom report can be downloaded [here](#).

UK iPAD USAGE

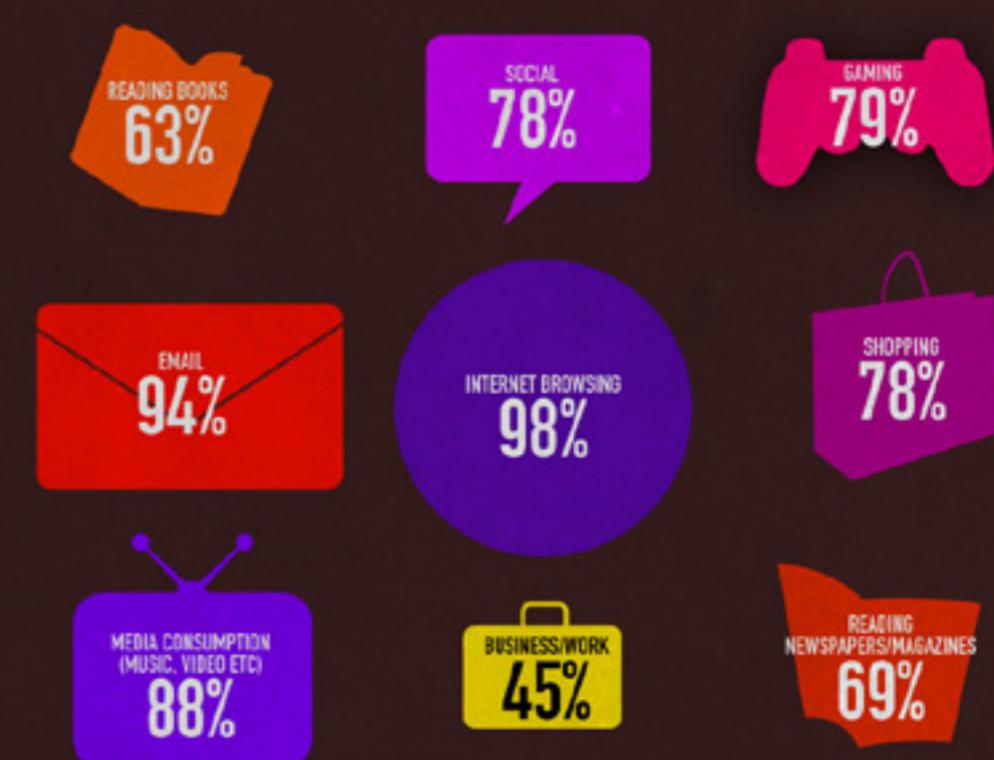
LARGEST SURVEY OF iPAD BEHAVIOUR



WHICH OF THE FOLLOWING DO YOU WATCH ON YOUR iPAD?



DO YOU USE YOUR iPAD FOR THE FOLLOWING?



DirecTV Launches Premium VOD Service

In April, the world's largest satellite company, DirecTV, launched a new premium VOD service in the US called 'Home Premiere' which lets users watch movies on-demand just 60 days after their theatrical release. Sony, NBC Universal, Warner Brothers and Fox are all partners in the new venture.

The movies are available on Home Premiere for a two week window and, once bought, can be viewed multiple times by the individual subscriber within 48 hours. Each title will cost \$29.99.

DirecTV's announcement set off a chain of reactions: Comcast and VUDU both indicated that they would set up rival services; theatre owners were reportedly furious about the potential loss of income from decreased cinema audiences and prominent Hollywood directors like James Cameron and Peter Jackson came out against the plans expressing a fear of smaller movie-making budgets as a result of lower overall revenues. The studios however maintained that falling DVD income (down as much as 44% compared over the past two years according to analysts, SNL Kagan) justified their decision to explore alternative business models.

In the past week, film mogul, Harvey Weinstein, has sought to assuage theatres by saying that since online services aren't close to making up the money lost by slowing DVD sales, cinema runs have become even more important to the industry. Whether this has the desired effect remains to be seen.

For more on this story see Comment, page 61.



3,000 New Movies-on-Demand on YouTube

Around the same time as DirecTV launched their new 'Home Premiere' service in April (see left) rumours started swirling that YouTube was about to announce a premium VOD offering of its own featuring 3,000 full-length Hollywood movies and thus doubling the number of feature films it streams.



YouTube's blog site confirmed the rumours on 9 May:

"In addition to the hundreds of free movies available on the site since 2009, you will be [now] able to find and rent some of your favorite films. From memorable hits and cult classics like Caddyshack, Goodfellas, Scarface, and Taxi Driver to blockbuster new releases like Inception, The King's Speech, Little Fockers, The Green Hornet and Despicable Me. Movies are available to rent at industry standard pricing, and can be watched with your YouTube account on any computer. The new titles will begin appearing later today and over the coming weeks to www.youtube.com/movies, so keep checking back."

The service is currently only available in the US and costs \$2.99 to rent library titles and \$3.99 for new releases. Subscribers have 30 days to watch their movie but only 24 hours once they've started streaming any part of the content.

www.youtube.com

Red Bee Launches 'Next Generation' Online Video Platform

Red Bee Media, responsible for managing more than 90% of broadcaster video on demand content consumed in the UK, has launched RedPlayer, the first 'media grade', end-to-end, next-generation online video platform. RedPlayer™ allows broadcasters and content owners in the UK and internationally to deliver and monetise high quality video to multiple devices, including iPhone, iPad and Playstation, in a secure and scalable manner.

The broadcast services company, which manages the content for the BBC iPlayer, ITV Player, Channel 4's 4OD, Channel Five's Demand Five and the Virgin Media Player, has developed RedPlayer to introduce to market an enhanced online video platform, and to become an end-to-end provider of video management and distribution. RedPlayer has been created in response to a growing demand for broadcast quality online video platforms that offer a secure and quality player service that can be monetised - a requirement fuelled by the advent of connected TV and growth in consumption of video across multiple devices.

Key features of RedPlayer include: a higher quality of image and smoother playback; sophisticated security using the latest digital rights managements (DRM) platforms; integration of live content with intelligent EPG that links past, present and future programming in a

personalised manner; and fast availability of programmes available online immediately after linear transmission.

Additionally, RedPlayer enables businesses to profit from the growing online video market by offering flexible options for multiple purchase types including subscription, download to own, rental and capped or uncapped library access, using Cisco Videoscape Media technology. These options sit alongside dynamic and targeted advertising capabilities. Red Bee Media has partnered with industry leading businesses Cisco, 247 Real Media and Akamai to create the 'media grade' end-to-end service.

RedPlayer comes to market at a time when online video is growing rapidly. In April 2011 26.9m people in the UK streamed video from home and work computers, according to research by Nielsen VideoCensus. Cisco predicts that by 2013 video content will account for 90% of all online traffic.



For more information about the RedPlayer visit
www.redbeemedia.com



Bismarck Lepe, Co-founder & President of Products at Ooyala, Talks About the New 4oD iPad App

Channel 4 used our Ooyala Everywhere solution for the 4oD iPad app. Ooyala Everywhere is a suite of technologies and services which allow customers to stream content to a wide range of devices – mobile, connected TV, tablets – with HD quality that's optimised for each output. It also has a built-in payment engine, which can be used for pay-per-view and subscription business models.

The way Channel 4 leveraged this product was to work with Nice Agency for the front-end experience while we managed all of the back-end workflow of ingesting, transcoding, DRM and delivering the content out to devices. Ooyala Analytics was then embedded in their player in order to provide detailed feedback on viewership.



One of the benefits of Ooyala Everywhere is that it cuts down on the time to market for these apps. The 4oD app took only 2 man months for the development and build phase. Our Client Services Group worked closely with Channel 4 and Nice Agency to develop the necessary best practices that would increase the pace of development.

This was the first time we've done a project with Channel 4 but in the UK we also work with the Telegraph Media Group, News International, Arsenal Football Club and we'll be announcing many more in the near future.

The UK is a really important market for us and of the many apps we've created we're very proud of the way the 4oD app turned out.

4oD iPad App

Developed by: The Nice Agency

Other partners: Ooyala

Tested on: iPad 2, 64GB, iOS v4.3.1

Editor's Rating



User Rating (iPad App Store)



Design

The 4oD app is here and we have to say that it looks very nice. And that's not just because almost everything looks nice on the iPad. The design is clean, uncluttered and easy on the eye. Almost everything you'd expect to see on a video app is in plain sight including an A-Z of programmes, suggested viewing, 'Catch-up' and category listings. Help and programme information is also very easy to spot and whilst the default player itself isn't much bigger than a regular iPhone screen a full screen mode is also available. We likey.

Usability

Multiple menus in a smallish space can confuse and detract from an app's usefulness but C4 seems to have got this just about right. On startup, the app is split horizontally down the middle: the top half contains the branding, a big window for a recommended show - which doubles as the player area - and, of course, the sponsor; the bottom the various menu options. Navigating your way through these feels comfortable and intuitive whether you want to watch the suggested programmes or browse through the categories / full index. Toggle between available shows and show information.

Parental controls are a breeze to set up - simply enter a 4-digit PIN code - but C4 assumes that it's a parent who installs the app in the first place and then hands it over to a young person to use. If parental controls aren't set up you simply get the usual "Please confirm you're over 16" message which reminds us of that story in 'The Onion' years ago - "I Am Under 18 Button Clicked For First Time in History of Internet". It's a minor quibble.

Finally, monetization. The app, which was released on 28 April, was a free download. Perhaps then there'd be more adverts to pay for the service? Luckily not. We watched Episode 1 of "The IT Crowd" and it was prefaced only by a one-minute pre-roll ad: no mid-roll or post-roll ads.

Content

Just when things were going so well, the app is let down a little by its content. It's not that there's a lack of programmes (we counted 80 different shows available on the app many with multiple episodes) it's the haphazardness of what is and isn't there. For example, clicking on "The IT Crowd" suggests that 2 seasons are ready and waiting to be watched. Closer inspection reveals however that only Episode 4 of Series 1 and Episodes 1-4 of Series 4 can be viewed. Seems a bit random, no? Is there a rights issue? If there is it applies to the iPad only because the web version of 4oD has all episodes of both seasons available.

Similarly, some of our favourites are missing (mildly ironic when the app's tagline is "Catch up on all your Channel 4 favourites here"). Where is Grand Designs or Jamie Oliver's food-related work or Derren Brown's earliest TV appearances? They're on the web. Maybe they're coming soon.

Conclusion

Overall, a job well done. 4 thumbs up out of 5. Download it now while it's still free. 



The People & Machines That Bring VOD to our Screens

Interviews by Kauser Kanji

Missed the latest episode of 'The Apprentice'? You could always catch it on the BBC iPlayer. What about 'Downton Abbey'? That's on ITV.com. And 'Glee'? You'll find that on 4oD. As television consumers we're now thoroughly used to watching video on our phones, PCs and tablets but we may never think about the challenges – technical, logistical, financial – and all of the teams of workers that are involved in getting a piece of content to screen.

Even as VOD professionals, unless we're doing a job that involves regular contact with a range of different departments, we might not have a chance to see the process.

So that's what this article is about.

Through interviews with key staff and a look at core technologies, we try to gain a better understanding of the chain of events it takes to get a TV programme from production all the way through to delivery to an end-user's device.

These are some of the people and machines that bring VOD to our screens.



DAVID THOMPSON
FILM & TV PRODUCER
ORIGIN PICTURES

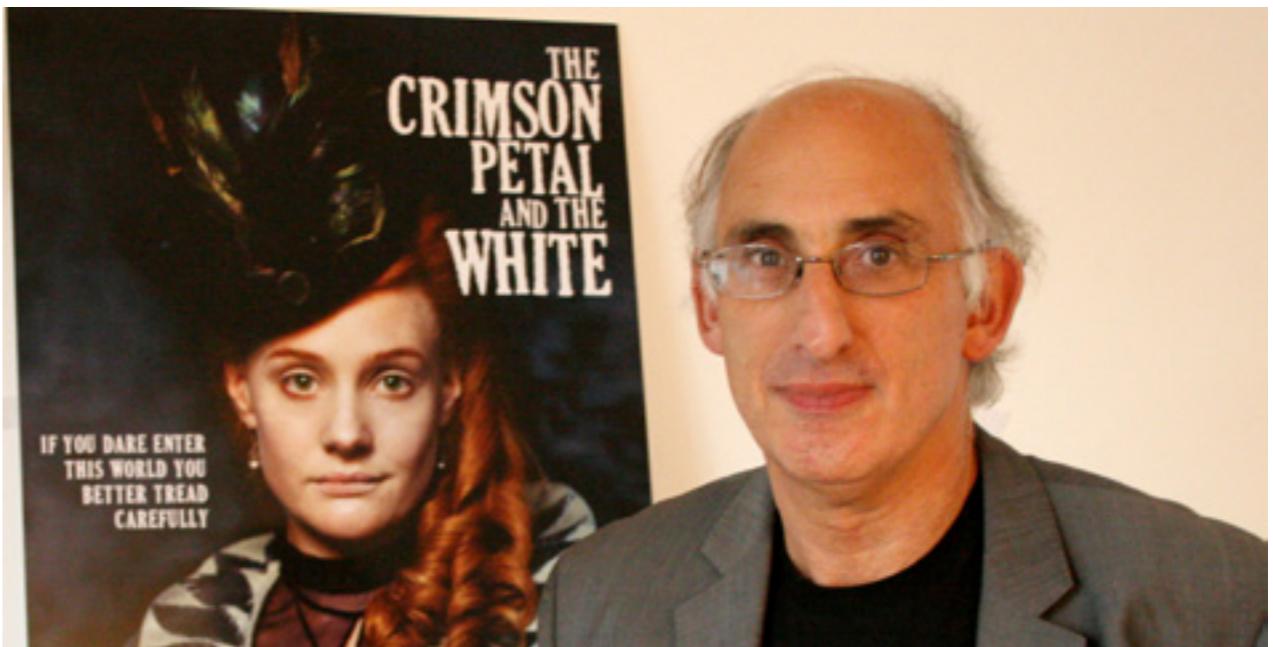
THE PEOPLE & MACHINES THAT
BRING VOD TO OUR SCREENS

My latest drama series,

'The Crimson Petal and The White', recently aired on BBC2. The BBC had the UK transmission rights – both linear and VOD – and the international rights were sold to a distribution company called Fremantle Media. We also worked with a Canadian firm called Cite Amerique and a post-production house called LipSync so it was a real collaborative venture.

Broadcast rights are usually sold territory by territory. Ideally, you try and get someone to pay for all of the production costs and hang on to the rights but nowadays that's harder and harder to do. There's no chopping up of online rights and broadcast rights – at least not for us as the content producers. They're sold as a package. That said, video-on-demand, incorporating IPTV and services like Netflix, is a big growth area for us.

What I was struck by when 'The Crimson Petal' came out was how few people watched it when it was actually broadcast and how many people watched it on catch-up or on the BBC iPlayer. Admittedly, the weather around that time was brilliant and the show was up against



the football and the 'Masterchef' finals but I was still quite surprised by the viewer behaviour.

People's habits have changed a lot and they now watch things when *they* want to watch them and not necessarily when they're on television – unless it's a live programme like sport or the X-Factor. The other thing I've heard from viewers is "We don't want to watch a show until we know that we can watch all of the episodes together". Perhaps the prevalence of DVD box-sets has something to do with that.

It's really exciting because I've worked in television a long time and in the old days it was "It's on and then it's gone" whereas now there's a 'long tail' and programmes have much more longevity. They can build a following over a sustained period and social sites on the internet can spread word-of-mouth recommendations.

I wonder about the way that television is evolving. The economics of television is very challenging: you need a lot of money to get a show made but hopefully VOD can help raise revenues because of the longer life of a show. Theoretically, it might one day be commercially possible to make a drama like 'Crimson' and sell it directly to Netflix or iTunes and not to TV at all. Not yet but maybe one day.



ANTONY GOSTYN
FILM & TV LAWYER
SWAN TURTON

THE PEOPLE & MACHINES THAT
BRING VOD TO OUR SCREENS

I've been a Film and Television

lawyer for many years and have worked for production companies, financiers and broadcasters. As a result I have experience in many different areas of film- and TV programme-making from development through to production and distribution.

Depending on the circumstances, the producer may have disposed of some of the exploitation rights to a commissioning broadcaster or a distributor in return for some or all of the finance necessary to fund the production. For example, the BBC might finance a project and take the UK broadcast rights to that programme. The producer would then appoint a distributor to negotiate licence agreements for the remaining rights on a territory-by-territory and / or media-by-media basis. Linear transmission rights could therefore be sold to a broadcaster in France but the DVD rights for France could be passed to another company.

These days, UK broadcasters usually also get access to certain online and video-on-demand rights at least for a period of time. Once the initial period has finished however, the producer – via the distributor – may be free to sell these rights to other channels and organisations.

Three of the main points to cover in online and VOD rights contracts are:

- The amount of time during which the licensee may hold the rights
- The 'time window' in which they can make an individual film or programme available
- Which geographical territory that content can be shown in

There's an element of 'Russian dolls' about the legal agreements for film and television programmes in that you have contracts around contracts. There is the main financing and production agreement and then you have the contracts for the individual elements of the film or programme, such as the talent, the underlying rights, the script and the music.

It may be that the money available to produce the relevant film or programme is insufficient to cover the cost of clearing all of the ingredients for all uses. For instance, some UK broadcasters have arrangements with MCPS which allows the broadcaster and producers commissioned by it to use all of MCPS' catalogue, but only for the purposes of that broadcaster's transmissions. If the programme later goes out outside the UK or online or on-demand, further permission will be required and a further fee will be payable. Producers need to be stringent about checking this and accept that changes may have to be made to enable the programme to be exploited in different media.

Another thing that may require special care is older programming. A producer may have granted "all television rights" to a licensee but there's no mention of online or on-demand rights. Why would there be? Now, television and online uses overlap. It's an evolving area of law which we're going to be kept busy with for some time.



DAVE PRICE
TECHNICAL SUPERVISOR,
MULTI-FORMAT TRANSFERS
ITN SOURCE

THE PEOPLE & MACHINES THAT
BRING VOD TO OUR SCREENS

ITN Source is a major provider

of archive clips for the television broadcast industry. We have over 1m hours of footage spanning 3 centuries from the 19th to the 21st century. I'm the technical supervisor of the multi-format transfer (MFT) department. That's the content-aggregator for ITN Source where materials come in from lots of different sources like ITV, Reuters and our own archive, in lots of different formats like Beta SP, Digibeta, DVC-Pro, film and files like MPEG-4s.

All of this content gets converted into a format that the client requests. For example, a client might want everything in WMV files but the source formats may not match so we ingest and transcode the content to provide the right output. So the process is as follows: the client order will pass from the sales team to customer services. If the content isn't digitised, the Vaults staff will find the clip from the extensive ITN vault in our basement. The content might be on a tape or another old format so Vaults will correct any issues there are like poor sound, brightness, lighting etc. and they'll then ingest that content using an analogue digital converter and high-end "legalizers" into our digital

asset management server. Once it's on the server, our "shotlisters" will add and update metadata to the item which is recorded in our content management system. That means it's then searchable by internal staff and customers alike. The footage itself can then be encoded into the end-output format and delivered to the client.



I look after a team of brilliant MFT media technicians who all have specialist areas of knowledge but also core skills like tape dubbing, time dubbing, tape-code matching, sprint-control, Content Agent use and basic telecine. One of my other primary functions is equipment maintenance. It doesn't matter how great a piece of content is; if the kit isn't working we can't get the customer what they want. If we can identify problems before they happen we can escalate them appropriately and head them off at the pass.

Recently, we've upgraded many of our systems and infrastructure to high-definition cabling, routers, circuits, monitoring, trunking and audio. We can now do HD, SD, up-convert, down-convert: whatever the customer needs!

GEORGE FRASER
VP INTERNATIONAL
LIMELIGHT NETWORKS

THE PEOPLE & MACHINES THAT
BRING VOD TO OUR SCREENS

My first experience of internet-based video was in 1996 when I worked for a division of AOL that offered hosted online video at 28.8kbps. There was a big celebration when we moved to 56k! We did a deal with UEFA around that time and you could hardly see the ball in the football matches we showed.

I then worked for Real Networks and I remember thinking that Flash video would never catch on. What do I know?! You look now at how people are viewing content on things like iPlayer and it's amazing. More than 50% of all internet traffic, across the world, is now video-related and on any given day, Limelight will be delivering about 20% of that traffic.

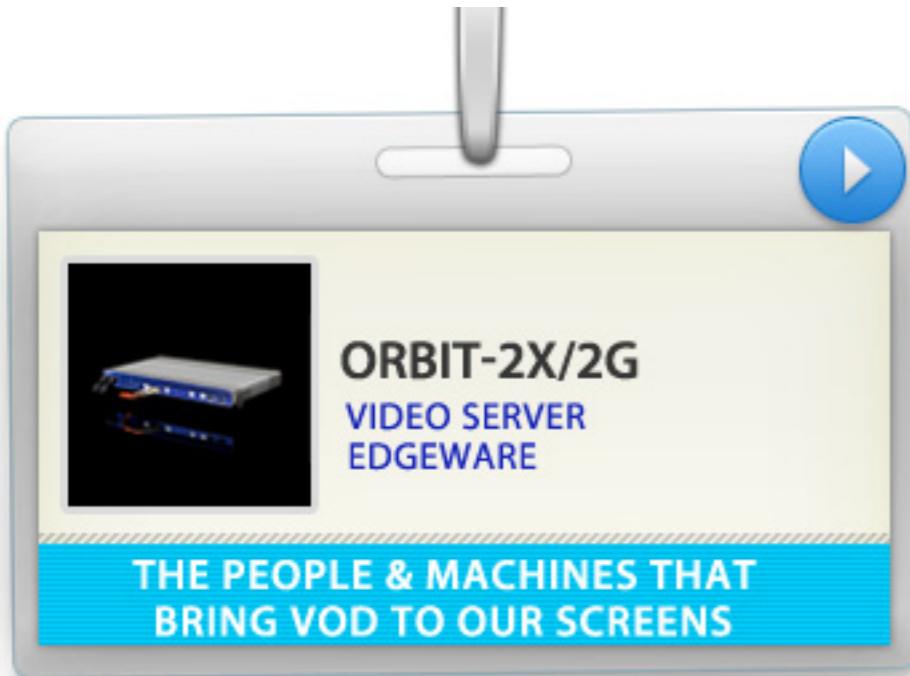
When a piece of content reaches Limelight Networks one of our big jobs is to encode the item for delivery to multiple platforms like PCs, mobiles, tablets and TV sets. Our software then decides on the most appropriate version of the asset to send depending on the type of device, its operating system, where on the planet it's located and what its available bandwidth is.

Broadcasters and publishers use a CDN for this process for 2 main reasons:

1. We can store their content (and all of its associated metadata) in the Cloud. That means that when someone goes to a web page which contains video, the asset itself is delivered from one of our servers or caches around the world.
2. We dedicate resources to keeping up to date with technology challenges. In my opinion, convergence is NOT happening. Divergence is happening. We're getting more connected devices, not fewer, and there are therefore more parameters to consider. There are ever-changing security protocols, protection requirements and streaming standards, and by the time a broadcaster has upgraded their legacy systems they may already be out of date.

All that said, it's important to note that Limelight has grown exponentially since we opened our doors ten years ago, and we are now so much more than a CDN. We help customers capitalize on three important trends in the marketplace: the ever-growing shift of content and advertising online, the explosive growth of mobile and connected devices and the migration of IT applications and services into the cloud. Limelight helps customers capitalize on these trends by handling the complete website lifecycle in the cloud, including publishing workflow, site acceleration and hosting, video and content publishing, mobile and tablet distribution and site monetization.

And that's our entire premise: we create better efficiencies and workflows to help our customers help *their* customers.



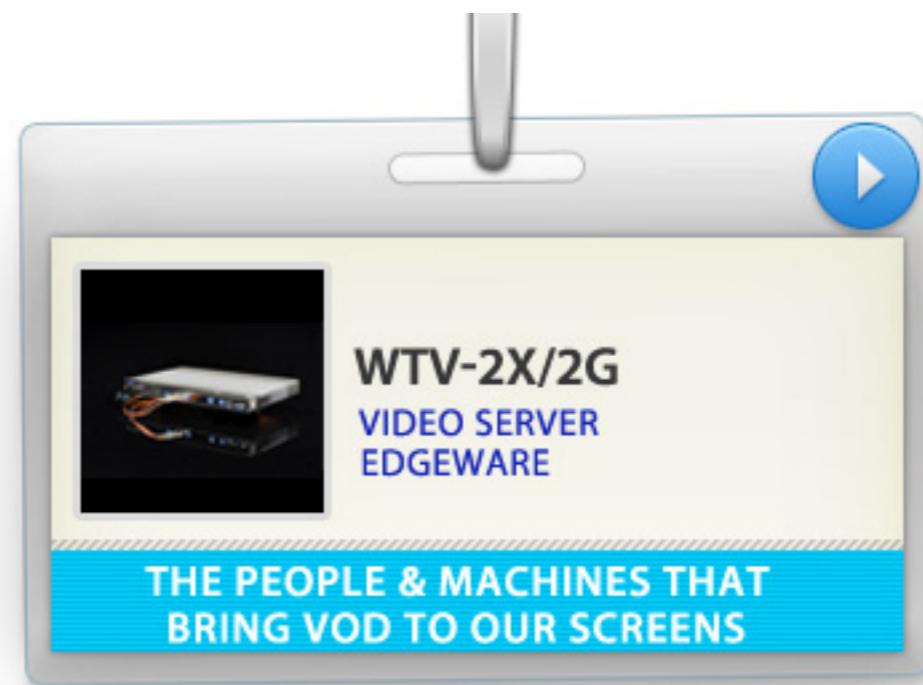
Edgeware is the technology

leader in distributed video delivery, enabling operators and carriers to cost-effectively grow their TV and video services and scale them across their network to an increasing number of users on any device.

Edgeware's purpose built hardware platforms, combined with integrated software systems, provide distributed asset propagation, video delivery and trick play, enhanced Quality of Experience (QoE) and sophisticated infrastructure management tools.

Edgeware offers two product lines that meet the most stringent requirements for distributed implementation in a carrier or operator network, allowing operators to reduce both CAPEX and OPEX by distributing the devices as close to the subscriber as possible.

Primarily aimed at cable and telco operators, Orbit-2X/2G video servers feature built-in capability for advanced on-demand TV services such as Video-on-Demand, Time-shifted Live TV, network PVR type services as well as support for advanced linear TV functions including



retransmission capabilities and Fast Channel Change feature to ensure high Quality of Experience.

WTV-2X/2G servers enable network and content providers to offer multi-screen over-the-top services, and network providers to offer video-based CDN capabilities to content providers within their own network. Capable of being deployed deep in the network, the server allows popular content to be placed closer to the subscriber for faster deployment and enhanced QoE. The WTV-2X server supports multiple adaptive streaming protocols as well as high levels of bandwidth and highly deterministic performance, allowing reliable support for a broad range and very high number of video capable devices.

PAUL MYERS
VOD CONTENT OPERATIONS MANAGER
4oD

THE PEOPLE & MACHINES THAT
BRING VOD TO OUR SCREENS

As the VOD Content Operations

Manager for 4oD, I look after the end-to-end preparation, management and delivery of all content on the service and the systems that sit behind that.

Most programmes, especially for "catch-up", come from the linear broadcast transmissions. If we're premiering something on 4oD or making non-linear content available, the file comes into Channel 4 and is then re-purposed for 4oD in all its different guises: for the web, iTunes, YouTube or for one of our syndicated partners like Virgin. We try to mirror content from our channels as accurately as possible so that our viewers can watch shows that they have missed on TV. We do though have an increasing amount of content which is produced for non-linear.

Content is usually delivered to us on tape, via our playout facility Red Bee Media, who then ingest and QA the content. Once we're happy with it, the file is moved to a digital asset storage system which is plugged into both our linear and non-linear workflow. It also lets the Non-Linear teams prepare it for all the different platforms 4oD is on. As the VoD environment is still in a state of growth and finding a

technical equilibrium it is necessary to prepare a variety of different specifications. We are constantly looking at video types and codecs and we attempt to produce as high a quality as possible.

At the same time as the above process is happening the content is being reviewed internally by our VOD team for editorial, compliance, ratings guidance etc. The editorial metadata for each programme includes text about the show, still images, supporting editorial, synopses, keywords, contributing parties, directors, actors and category classifications plus preview clips and something we call "editorial highlights" which is used for programme recommendations on a given platform.

All of our VOD systems have been built internally so they're purpose-built for our needs. Still, the workflows can sometimes be quite complex. Just like broadcast content we have to make sure that pre- and post-watershed versions are created. And we're always aware that programmes have to pass legal and quality standards and there's no discrepancy with anything done by Linear unless required.

Where content is pre-produced we can get it ready so that it appears on our on-demand channels – subject to any rights limitations like time windows or geographical restrictions – very soon after it's been broadcast on television. With our live programming, we try to do as much prep in advance so that it can quickly be made available on-demand. As technology improves, customer expectations have grown so we're continuously looking at how fast we can get the show up on 4oD.

It's a really exciting time at 4oD right now. Our iPad app, which only launched at the end of April, has already been downloaded over a quarter of a million times, we have an increasing number of premieres, and we now have our first programme, *Unreported World*, which is not geo-blocked and is available all over the world.

DAVE GRAYLAND
HEAD OF TECHNOLOGY
MULTISCREEN PRODUCT
VIRGIN MEDIA

THE PEOPLE & MACHINES THAT
BRING VOD TO OUR SCREENS

Q&A

VOD PROFESSIONAL: Hi Dave, who do you work with at Virgin Media and what do you all, as a team, do there?

DAVE GRAYLAND: My role is to work end-to-end across the entire operation, ensuring we deliver great content and a great experience both within budget and to plan. This involves working closely with various departments from Content Acquisition, Legal, Security, Marketing, Advertising, Service Management, Delivery, Development, Design and User Experience. I try to embrace the skills and experience of these teams as well as evolve existing processes and methods to the specific needs of the project and challenges it poses. Being flexible is key!

VODPRO: What are the most recent developments with the player?

DG: Alongside the raft of great content we have including LIVING, Disney, Cartoon Network, National Geographic and Discovery shows, we've added catch up content from BBC iPlayer, 4oD, ITV Player and Demand 5 to our line up. We're also working on personalised

suggestions and recommendations, social sharing and enhanced search functionality. The aim is to enable our customers to discover and watch their favourite programmes whenever, wherever, simply and quickly.

VODPRO: What skills do you need to do your job?

DG: A strong technical background, commercial expertise and I would say, most importantly, experience of working on large, diverse, complex projects. Experience will give you the ability to make the right decisions, involving the right people, at the right time. You need to identify risks early and have a plan able to address and resolve them quickly.

VODPRO: Who decides what development happens on the player?

DG: The Multiscreen Product Director decides on the development roadmap. The Project Management team and myself plan the development, define a delivery strategy and execute.

VODPRO: What meetings do you attend and with whom?

DG: I'm in most meetings to do with Virgin Media Player but to highlight a few; I attend product proposition meetings with Content Acquisition, Commercial, Product and Finance. I run delivery and planning meetings with Project Management, Development, Design and User Experience and our technology providers. And I consult in technology roadmap & strategy meetings with our Architecture, Solution Design, Innovation and Strategy teams.

VODPRO: Finally, any good stories?!

DG: I would simply advise you to never invite a technical architect to a commercial meeting if your ambition is to finish in under an hour. So much knowledge, so little time and so much gets lost in translation.



PHIL COOPER
MANAGING DIRECTOR
EUROPE
BRIGHTROLL

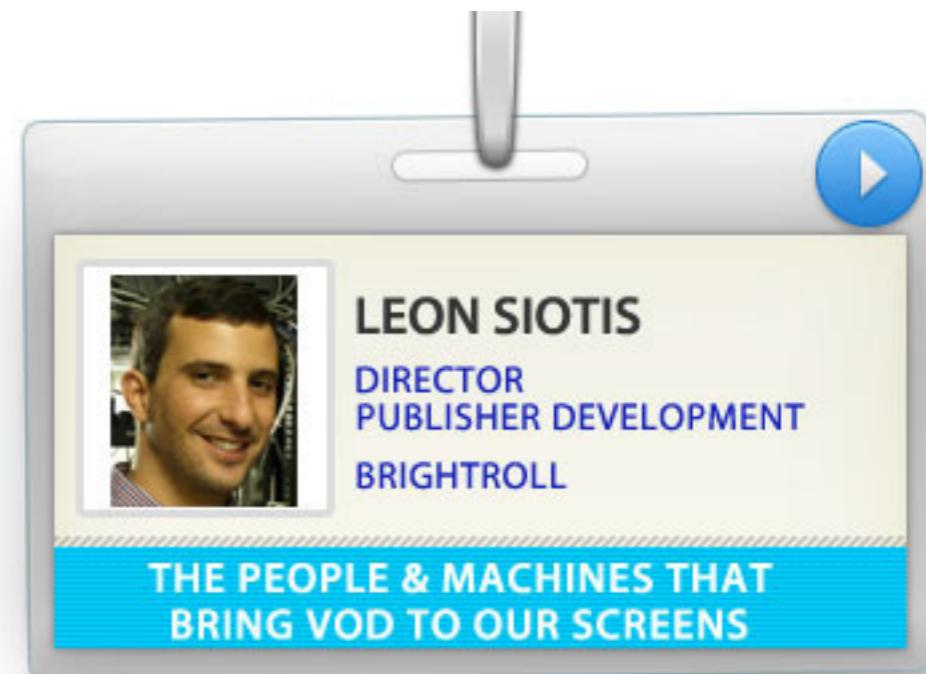
THE PEOPLE & MACHINES THAT
BRING VOD TO OUR SCREENS

Brightroll is a video advertising network so we sell ads for our customers within their video assets.

Usually, a publisher will have one of two choices: either they have an in-house sales team to sell their ads or they hire an external video ad network like Brightroll to do it for them. If they use us, first the client's details are entered into our ad management system. Next, the publisher places an ad tag into each of their video assets which, when played, calls an ad from our server. Finally, our software's in-built "optimisation and decision engine" will make a choice about the best ad to serve against that piece of content matching it against the advertiser's desired audience and user profile.

One of the big differences between broadcast advertising and online video advertising is in targeting and tracking. So if an advertiser wants to reach say an audience of 18-25 year-olds on regular TV they might buy an ad slot for X-Factor. Just because a person watches that show they're assumed to be within the advertiser's preferred audience profile.

With online however we have a lot more data about users and their behaviour so we can be much more specific with our focus.

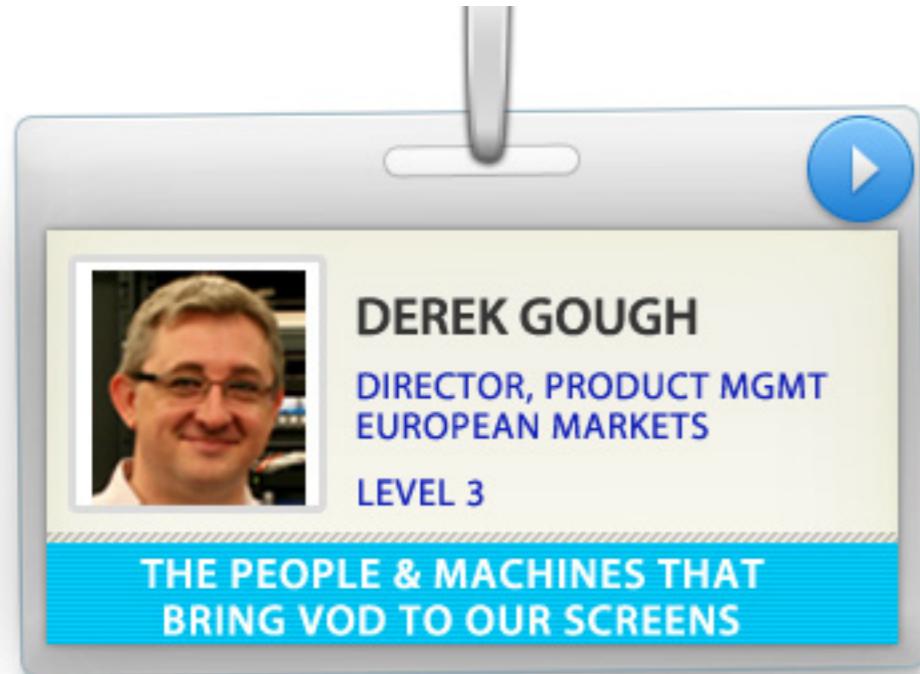


LEON SIOTIS
DIRECTOR
PUBLISHER DEVELOPMENT
BRIGHTROLL

THE PEOPLE & MACHINES THAT
BRING VOD TO OUR SCREENS

We can match a person on content but also on other things they might be interested in based on their viewing habits over time. That means that we can serve relevant ads which will be most well-received by an individual. Publishers also get higher revenues from advertisers who are willing to pay higher rates for better targeting.

Click here to read an interview with Phil Cooper, Managing Director of Brightroll UK on vodprofessional.com.



DEREK GOUGH
DIRECTOR, PRODUCT MGMT
EUROPEAN MARKETS
LEVEL 3

THE PEOPLE & MACHINES THAT
BRING VOD TO OUR SCREENS

Level 3 servers function as

the backbone of the internet. So, a user who clicks a video on, for example, the Sky Player knows that they're connecting to their ISP. In turn, the ISP connects to Level 3 to pull the content out of the ether. Even though a large percentage of the world's internet traffic goes through Level 3's network we're not actually that well-known even in the technology field.

As Head of Products for Level 3's content portfolio in Europe I look after our CDN (content delivery network) portfolio and a service called VYVX which transports uncompressed video over fiber optics. It's big in America but a relatively new product here in Europe. The synergy between CDN and VYVX is strong because if a broadcaster wants to stream a live event online we can acquire the footage over VYVX, uncompressed and in its source quality, take a feed out of it, encode it and help broadcasters deliver it online.

The distribution of online video has exploded over recent years and it really is just the foothill of a very large mountain. It's just the beginning for what is going to be an unimaginably high use of video in the next



decade. In the USA, Netflix now accounts for 29% of all Internet traffic which is an extraordinary statistic (Source: Sandvine 2011). In time we'll see augmented reality video but more recently, we've been working a lot on HD and 3D content. In the next few years everything will accelerate. Catch up TV services will grow even more in importance.

Today, online distribution and terrestrial distribution is still quite clearly delineated. Most people tend to watch the majority of IP-delivered content on their PC which, in time, will come to seem like a niche view. Gradually, we'll see a coming together of IP services and terrestrial distribution on set-top boxes and TVs that are IP-enabled. We'll switch merrily between live terrestrial content and catch-up, on-demand services seamlessly.



STEPHEN WILLS
SENIOR ENGINEER
LEVEL 3

THE PEOPLE & MACHINES THAT
BRING VOD TO OUR SCREENS

Level 3 Communications

provide a portfolio of co-location, internet, fibre-based transmission, voice, and content and media telecommunications services.

In addition to supporting traditional telecommunications transport and IP services, Level 3 Communications' fibre-based transmission and IP networks also provide the lower network layers upon which streaming media, content delivery and broadcast services are supported.

Typically, each of its backbone fibre routes consist of one or more fibre cables, with each cable consisting of multiple fibre pairs. Using Level 3 transmission equipment in service today, each fibre pair can support as much as 3.2T bit/s of data.

Fiber optics is basically the transport layer for all internet traffic and that really is the core part of Level 3's business. We provide facilities to companies to allow them to retail internet access to the consumer or to businesses.

Level 3's Broadcast Services are supported using its Vyvx Broadcast Network. A number of broadcasters are connected directly to our London node and we carry a lot of broadcast traffic related to specific events. For example, with the Royal Wedding, live television signals

from outside broadcast trucks in Westminster were fed to Level 3's London Vyvx Node. From here the live feeds were distributed using the Vyvx Broadcast Network to a number US and Canadian broadcasters.

Level 3's Content Delivery Network is a vast system of interconnected servers that are clustered together in Level 3 datacentres across the globe. These servers store and deliver content (music, movies, software, documents) directly to end-users.

Level 3 provide a range of fixed rate and adaptive streaming media services. We can encode to pretty much any format the customer needs from fixed-rate Adobe Flash and Windows Media, to adaptive Microsoft Silverlight Smooth, HTTP Adaptive (which is used by iPhones and iPads) and Adobe Dynamic. Basically, whatever your device and operating system, we can get content to it.

Up till a couple of years ago everything was fixed rate. That meant that if your broadband was a bit slow you might see a lot of buffering when you were trying to watch a video – your PC was trying to play something that it didn't quite have enough power to handle.

Nowadays, with adaptive bit-rate technology, rather than encoding and delivering the video content as a single fixed rate stream, the source video is encoded into multiple streams at varying rates from low to high. All these bit rates are then made available for delivery to the end user.

Intelligence within the end users PC or mobile playback device effectively "tests" the delivery bandwidth and the processing power available, and selects the most appropriate bit rate for playback. This test is performed every 2 seconds to ensure that we're sending you the most appropriate stream. For an end-user the experience is seamless and hopefully, buffer-free. **VP**

**Super-target your marketing
messages to over 23,000
VOD professionals.**



**Call us today to discuss magazine
and website advertising and
sponsorship opportunities on
+44 (0)7702 447800 or email
advertising@vodprofessional.com.**



“I Literally am a VOD Professional!”

Asha Oberoi is the Managing Director of ITN Source and is someone I worked with for 9 months in 2009.

The original interview was simply supposed to be a “A Day in the Life of...” piece concentrating on the day-to-day job of a senior TV exec but as we discussed Asha’s role at ITN we got into a fascinating conversation about how she got her start in the media industry, worked on the first video-on-demand services at the BBC in the early Noughties and how the new television sector has developed over the past 10 years.

Asha Oberoi, Managing Director of ITN Source

My interview with Asha starts just after I've explained the idea of VOD Professional – a digital trade magazine for people who work in video-on-demand and IPTV:

Asha Oberoi: Well I literally am a VOD Professional because I worked for a V-O-D company called Homechoice – I don't know if you remember them? – back in 1998. [Homechoice was a bundle TV / Internet / VOD company and later became known as Tiscali TV. It was acquired by the Carphone Warehouse in 2009 and was rebranded using the current TalkTalk name.]

Kauser Kanji: I was a Homechoice subscriber. What were you doing there?

Oberoi: I was News Producer – acquiring content and news programmes from around the world, making it available on-demand and in a time-shifted format. One of our customers, rather bizarrely, was ITN. And I had a team of producers who would cut the content up into small packets and we'd have a slug or synopsis of what the story was about so that people could just watch that instead of having to watch the whole programme. It was the first dis-integration to a story-led approach.

Kanji: Right.

Oberoi: And from there I was recruited by the BBC to be "Executive Producer of Broadband" to create and launch the VOD platform for BBC News Online. So I've been in VOD pretty much since 3 years after I graduated from university.

Kanji: And which university were you at?

Oberoi: I studied journalism at Bournemouth University and

specialised in TV. Then I went to work for Sky as a TV journalist and from there I got the video-on-demand bug: I liked being able to control the output a bit more. So when I saw an ad in The Guardian for this role at Homechoice I went for it and got it. It was 3 times the money I was on before!

"I remember a very senior person at the BBC telling me that the only thing broadband would do for the internet was make the delivery of text faster!"

Kanji: Right, because 1st year journalists don't earn very much –

Oberoi: I started on 10 grand! The guy who hired me is called Dan Marks and he was, until very recently, CEO of BT Vision. He was the Managing Director of Homechoice at the time. I was 23 or 24 and I found myself as Exec Producer! It was really exciting and I learnt a lot back then a lot of which I'm still using now.

Kanji: Like what?

Oberoi: Well, I learnt a lot about rights management - time and geographical windows for instance – and VOD scheduling. Scheduling sounds a little odd when you're talking about video-on-demand but we found that if you put all of your content up without limits there are people out there who'll watch all of the content as quickly as they can. So, for example, we bought the first series of Friends at Homechoice and, in our naivety, because we don't know how the audience would use that content (there was no other video

Asha Oberoi, Managing Director of ITN Source

service of its kind around at the time) we put all of the Friends episodes up in one go. And one person somehow watched all of the episodes twice in less than 2 days! And then they would write us letters saying we want the second series, we want the third series. And of course our acquisitions team hadn't even negotiated those rights yet. And I remember thinking that even with VOD we still had to schedule and release a few episodes at a time. People used to watch our music videos so much that some of the files would actually get corrupted in the system!

So I learnt a lot about technology, consumer behaviour and rights. And those are 3 areas of knowledge I still use today.

Kanji: And after Homechoice?

Oberoi: While I was at Homechoice we were negotiating a deal with BBC News and they ended up hiring me. So I went to work for BBC News Online in the AV department four days before the September 11 bombings so I remember the day very well. My remit was to turn News Online - which was a text-based proposition - into a multimedia one.

Kanji: Yes, it was around that time that the BBC started putting video up on the News website...

Oberoi: That's right. So there was a tiny little video player with a camera icon playing 256k video and, as project manager, I was involved in working with the design and tech teams to keep it running and make it better.

The screenshot shows the BBC News website homepage on September 18, 2001. It features a sidebar with links for 'WATCH/LISTEN' (BBC Radio latest, BBC News 24, BBC World Service radio, BBC One TV news), 'LIVE AND COMING' (2000GMT/2100BST, Tony Blair on BBC World Service), and 'VIDEO CHOICE' (Imran Khan on Pakistan's dilemma, Programme pages). Below this is a section for 'LAUNCH CONSOLE FOR LATEST AUDIO/VIDEO'. A red banner at the bottom left displays 'The Markets: 20:46 UK' with current stock prices: FTSE 100 (4848.7, -50.2), Dow Jones (8875.86, -44.8), and Nasdaq (1553.16, -26.4). A yellow banner below it states 'FTSE delayed by 15 mins, Dow and Nasdaq by 20 mins'. The main content area features a large 'ATTACK ON AMERICA' banner with 'Full coverage' and a link to 'Kate Clark' (Afghanistan's victims) and 'Zaffar Abbas' (Pakistan's hard choices).

The BBC News website - with video - on 18 September 2001

And it was there that I learnt about politics because the entire News online department at the time was full of journalists and designers who had come from a print or text-based news background; a very different discipline than the one that was required for video to be successful online. And although I was convinced that people would watch video if it was available I was almost a lone voice apart from three others in my department. We guessed that video and broadband quality would increase – that 256k would turn into 512k which would turn into true broadband and fiber optics – and that the internet would become a rich media environment soon. Text would decline and multimedia would rise to the surface. All these things happened thankfully and I was vindicated but at the time it was like a thought-crime to say it.

Kanji: And was that resistance there because of fear?

Oberoi: Yes, it was job threats. There were individuals at the top of the tree who would not have been able to oversee a department that was video-led. Online eventually got absorbed into the bigger BBC News operation because fundamentally, online news is just a part of the overall television news output. I remember at the time saying that one of the 'B's in BBC stood for 'broadcasting' and one of the very senior people there telling me that the only thing broadband would do for the internet was make the delivery of text faster!

So working there was almost like being an outsider and I really needed to believe in myself and stick to my values. Luckily, I was encouraged by the traffic because the number of people watching video just kept on rising.

Asha Oberoi, Managing Director of ITN Source

The first thing we streamed live was the Queen Mother's funeral (in 2002) in 256k video and it was so successful that the site collapsed. And that was because the necessary infrastructure for video wasn't in place. So I wasn't just being led by my own vision but real numbers – real data.

Kanji: And what happened next?

Oberoi: We set the infrastructure up. The place was evolving but in 2004 I got to the point where I had to leave. The beauty about the BBC at that time was that we were creating an industry. Unbeknown to us, we were helping broadband thrive in the rest of the media market in the UK because the BBC could afford to experiment. And I was having a great time because I was working on cutting-edge R&D projects with companies like Kingston Communications.

You are in: UK
Wednesday, 10 April, 2002, 04:04 GMT 05:04 UK

Queen Mother is laid to rest



The Royal Family mourn a remarkable woman

WATCH/LISTEN REAL MEDIA ON THIS STORY

- **Archbishop of Canterbury Dr George Carey**
"We gather in this great Abbey to mourn and to give thanks"
- **The BBC's Nicholas Witchell**
"After the most public of funerals, the most private of committal services"
- **The BBC's Jennie Bond**
"Prince Charles was visibly very moved"



► Full coverage

Kanji: In Hull?

Oberoi: Yes, in Hull. I was also involved in PVR (personal video recorder) design projects and other things like "What would the 'red button' look like in a truly on-demand world?" So I was doing some really exciting stuff. We had money and resources and we could create these ideas and get involved in strategic decisions.

Kanji: So this training in R&D, design, strategy, ideas, business development and negotiation was the perfect grounding for you to take on your next challenge?

Oberoi: Yes, and that was at the Press Association (PA) via Real Networks. I'd moved to the BBC because of contacts with ex-colleagues at HomeChoice and the same thing happened when I moved to Real. I was selling BBC Worldwide material to Real Networks and they liked me and hired me. But I only stayed there for 8 weeks which was a bit naughty of me and I've never done anything like that since but another opportunity came along and that was to work as Head of Multimedia at PA.

Kanji: Kind of understandable?

Oberoi: Well, I got a call from a friend of mine who I used to work with at the BBC who said "I'm helping PA create a video strategy and I'd like you to come in and run the department." Again, the salary was excellent, I was running my own department and it was a bit about vindication for me because I felt like I had to leave the BBC: my voice wasn't being heard and it was such a big organisation and I now know that I'm far more successful as a big fish in a little pond than a big fish in a massive pond and that's what the BBC is – a very big pond.

Asha Oberoi, Managing Director of ITN Source

Kanji: So you left the BBC in 2004. Presumably the development of the iPlayer started only a little while later?

Oberoi: It did. I worked on the early iPlayer. It was called IMP – Interactive Media Player. For all I've said before there were very many smart people at the BBC – people in the strategy departments – but the part of the organisation I was involved in was still hell-bent on flat design and graphics – very text-heavy. And at the time places like the New York Times, the Wall Street Journal and CBS websites were doing fantastically interesting, rich interpretations of news stories which I felt we should do too. Instead, we were doing things that looked like treatments from The Guardian and that's because a lot of people in BBC News Online had come from The Guardian and other newspapers.

"There were definitely some brilliant people at the BBC but I just wasn't in the same bit of the company as them."

Kanji: So you don't regret leaving? I mean that whatever one's views on the BBC, the iPlayer is a fantastic product: great technology, a brilliant marketing campaign and it would have been great to work on it?

Oberoi: Well, it was really BBC New Media that championed iPlayer and not BBC News so I wouldn't have been involved. As I say, there were definitely some brilliant people at the BBC but I just wasn't in the same bit of the company as them. For me, leaving the BBC was just as much about where I could thrive and use my skills - and by then my skill set was very commercial - and with my commercial instincts I couldn't really work for a company that wouldn't commercialise itself. And I was always at odds with that.

Kanji: So you went to the Press Association?

Oberoi: Yes and that's where I became the beginnings of a really good executive whereas in the past I was more of a producer. I was responsible for an entire budget, for teams of people. I set up a video operation from scratch, I hired staff, I created the marketing and sales strategy and sold the products and that was as close I'd been to running my own business – until then.

Kanji: And you were still pretty young?

PRESS ASSOCIATION

Oberoi: I was 26 / 27.

Kanji: 5 years out of university –

Oberoi: Yes. I was having a great time. I was given a lot of scope to do what I felt was right and it really was one of the happiest times in my career. I mean there were still some frustrations like the ones I'd encountered at the BBC: I was still a video evangelist in a room full of newspaper-people. The peak of that was going to the Society of Editors conference – which is full of all the main editors in the country – and telling them in a speech that video had to become of their content make-up and getting a standing ovation. And that was an amazing moment for me from a vindication perspective. I knew

Asha Oberoi, Managing Director of ITN Source

that none of them really wanted to do it but the recognition was starting to take hold that video was really important. And because PA operated in a more commercial environment it was easier to say "This is a product, this is how much it costs, this is how you sell it." So I was comfortable there for the first 2 years but then when the project was up and running I felt like I'd done the main part of my work and started to think about what was next. The buzz was starting to go. I was coming in to work and doing the same thing every day and it started to feel too much like journalism and not enough about business.

Kanji: Well the obvious question then is how is ITN Source different? Specifically in terms of setting something up and then continuing to get a buzz from it?

Oberoi: It's a good question because up until coming here to ITN, I have always felt the need to move on as soon as I finished doing what I was doing. I think the answer is that I don't feel ITN Source is finished. I'm getting there but this was a business that was losing money and my objective was not to leave until it was profitable. And that will be this year for the business as a whole but probably not for a couple of years when it comes to the clips-sales side of things. There are still challenges. There are lots of things here that tick my boxes. It's a relatively small organisation, I'm senior, my voice is heard, I work well and closely with my colleagues, you can effect

change more. The beauty of being an MD in an organisation like this is you really feel like you're running your own business. I'm fairly autonomous and that feeds my enthusiasm.

Kanji: So you came here straight after PA?

Oberoi: No, an ex-PA offered me a job at the Telegraph. God, it seems like I haven't applied for a job in years! The Telegraph hired me as Multimedia Director but it was an absolute disaster. I hated it and left after 6 months. I think what happened was they wanted to move the Telegraph from being a regular newspaper to being a true multimedia online entity. So they hired 10 or 20 people all with these new media skills to do the same thing. No-one really had a job description or knew what they were doing and I got there with no real idea of what I supposed to be doing either. Subsequently, people were stepping on each other's toes and not much was being

The logo for Telegraph.co.uk, featuring the word "Telegraph" in a large, ornate, black serif font, followed by ".co." in a smaller, regular black sans-serif font.

Home	News	Sport	Business
World Cup 2006	BREAKING NEWS		
Comment			
Your view			
Blogs			
Fashion			



"The Telegraph hired me as Multimedia Director but it was an absolute disaster."

Asha Oberoi, Managing Director of ITN Source

achieved. I was being shoe-horned from the online department to the strategy department and there wasn't really a role for me or a number of others. I think they just saw someone who was doing something they thought they needed so they paid me a huge amount to come in and then paid me a huge amount again to leave so it was a lucrative 6 months but quite a painful one too.

Kanji: So that was your first real piece of bad luck – professionally if not in terms of your bank balance?

Oberoi: Well, I did well out of it but I was then on gardening leave for a few months so I studied holistic nutrition and the World Cup (2006) was on so I watched every single football match going and did a lot of baking!

Kanji: You were a domestic ladette!

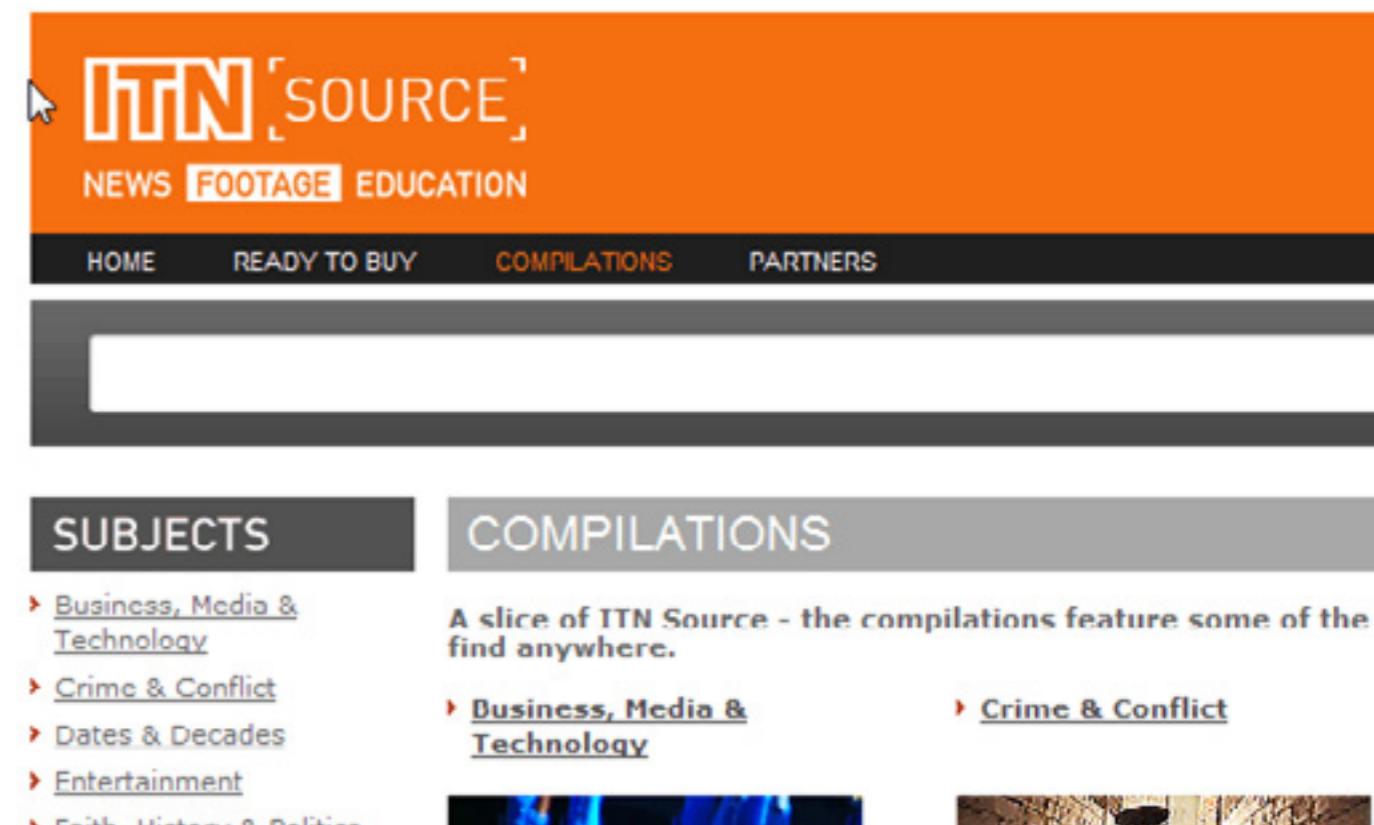
Oberoi: I was! And at the time I thought "I've had it with media" but then reconsidered and said to myself I've had one bad experience and I've still learnt from it so I set up a multimedia consultancy. I had 2 clients one of whom was ITV.com and I helped set up their video strategy and while I was there I came over to ITN. I still thought "I don't want to work for anyone else ever again" so I came in on a 6-month contract and somehow, after 3 months, I agreed to go full-time and I've been here ever since.

Kanji: And what was your first job title here?

Oberoi: Content Director. I just thought this place has got great potential and I can really do something here so I stayed.

Kanji: So, last question: what's next for you?

Oberoi: Well, pre-pregnancy (Oberoi is expecting her first child in August), the answer might have been different but for now, I'm definitely not finishing my media career although I'm more and more attracted to doing my own thing in the future. I do want to create my own business one day and make it very successful.



The screenshot shows the ITN SOURCE website. At the top, there's a navigation bar with links for 'HOME', 'READY TO BUY', 'COMPILATIONS' (which is highlighted in orange), and 'PARTNERS'. Below the navigation is a large orange header area featuring the 'ITN SOURCE' logo and the words 'NEWS FOOTAGE EDUCATION'. Underneath this is a dark grey sidebar with the word 'SUBJECTS' in white. To the right of the sidebar is a 'COMPILATIONS' section with a sub-headline: 'A slice of ITN Source - the compilations feature some of the best finds from our archive that you won't find anywhere.' Below this are two columns of links under 'Business, Media & Technology' and 'Crime & Conflict'. At the bottom of the page, there are two small thumbnail images: one for 'Business, Media & Technology' and another for 'Crime & Conflict'.

I'd love to take over a production company that has incredible assets that isn't yet exploiting them because I think I could bring something to the table there. Someone who is making a great show but isn't commercialising those rights internationally or on-demand. That would be a great challenge. I like to make money, I like to run companies and I like to manage people so I really want to carry on doing those things. **VP**



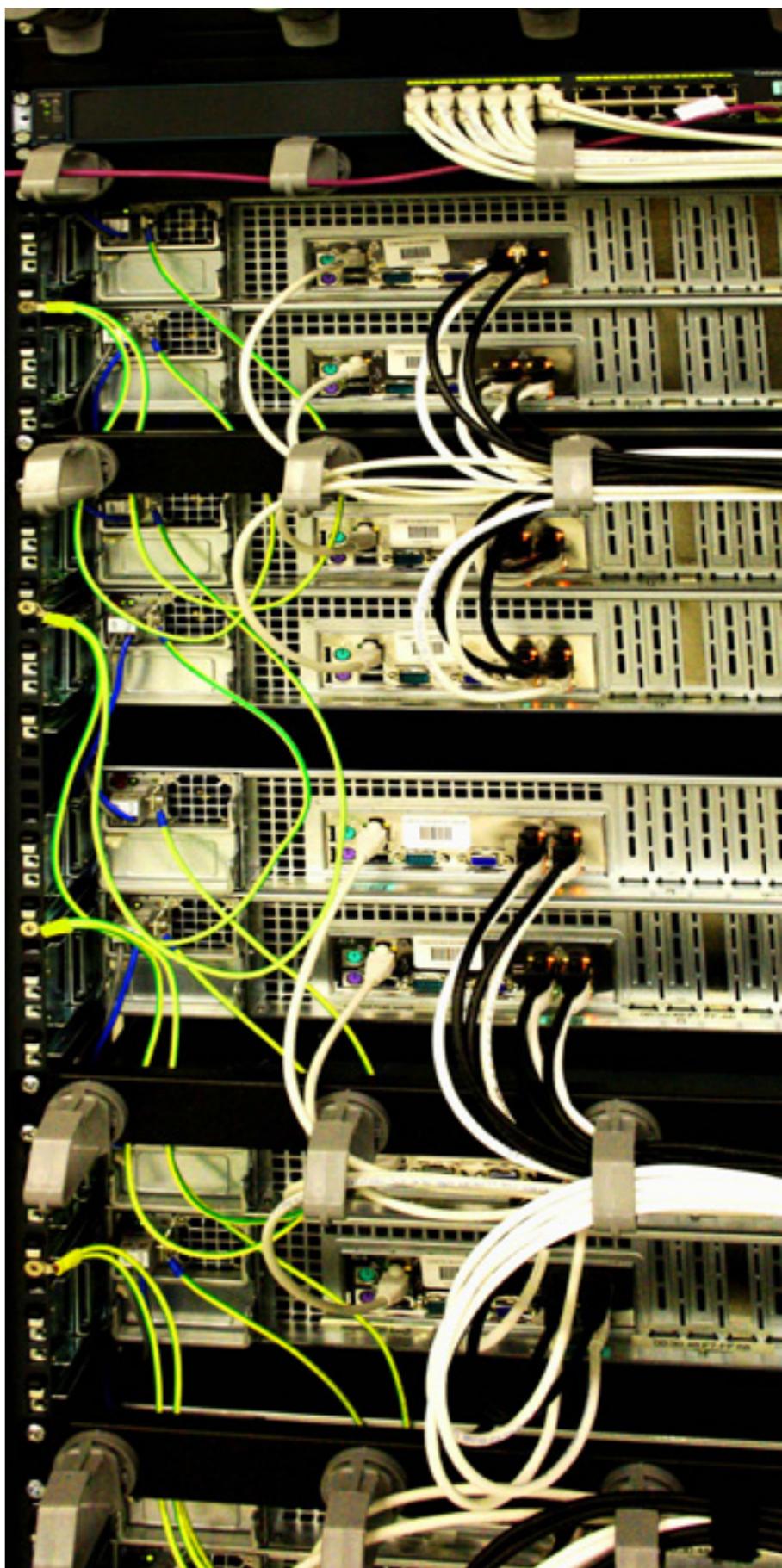
The Beating Heart of the Internet

Level 3 is one of only six Tier-1 networks in the world and carries up to 30% of all internet traffic on any given day.

VOD Professional was given an exclusive tour of the company's data centre in central London. This incredible facility, built from the shell of an old brewery, is where most of the UK's web connectivity comes from. At 20 MVA (mega volts-amperes) it has the power capacity of over 20,000 average homes and with an overall size of 25,000 square metres, it's large enough to contain 200 2-bed flats.

We didn't count the servers.

This is Level 3.



OVERVIEW

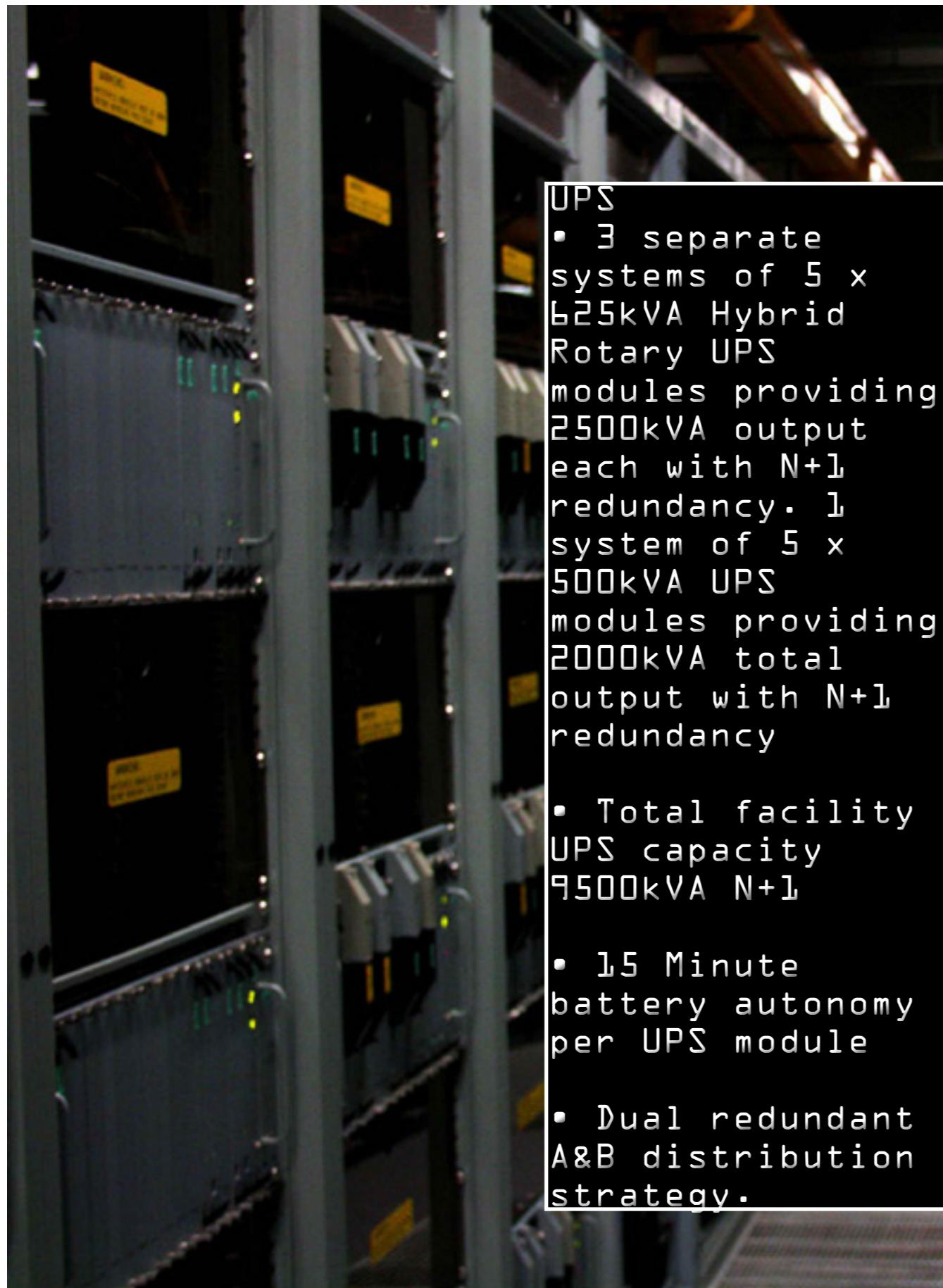
- Modern data centre facility situated on the northern fringes of the City of London
- Technical space arranged over 7 floors
- Total Size: 25,143m²
- Fully Fitted Colocation space: 12,212m²
- Maximum Site Power: 20 MVA
- Carrier Connectivity: Level 3, Colt, BT, C&W, Interoute, Neos, Cogent, euNetworks, Thus, Fibernet, Kingston, Verizon, AT&T





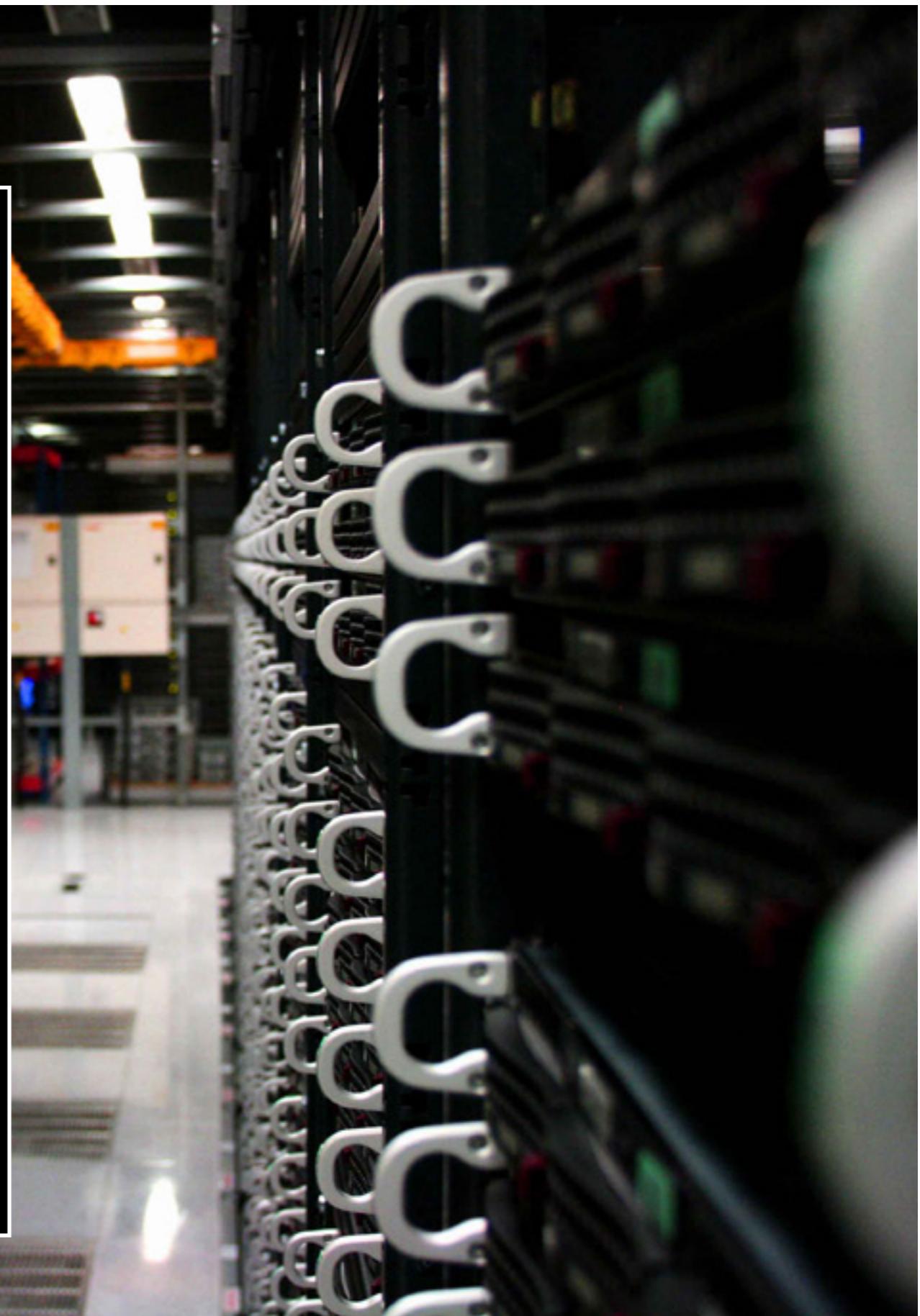
MAINS POWER

- Fuel storage for 24 hour continuous operation at 100% load.
- Dual redundant 20MVA, 33kV dedicated underground mains feeds, 4x 11kV supplies from ring supplied from 2 sub-stations
- 4 (5 ultimate) x 4.3MVA and 2 x 2.0MVA diesel driven emergency power generators giving 21.2MVA. Automatic start in less than 1 minute to feed 100% of the facility.



UPS

- 3 separate systems of 5 x 625kVA Hybrid Rotary UPS modules providing 2500kVA output each with N+1 redundancy. 1 system of 5 x 500kVA UPS modules providing 2000kVA total output with N+1 redundancy
- Total facility UPS capacity 9500kVA N+1
- 15 Minute battery autonomy per UPS module
- Dual redundant A&B distribution strategy.



ENVIRONMENT

- 750W/m² average cooling capability over the gross space
- Temperature regulated to below 26°C
- Humidity regulated overall to 50%RH +/- 20%
- Under floor cooling air distribution
- Technical areas positively pressurized to minimize dust ingress.

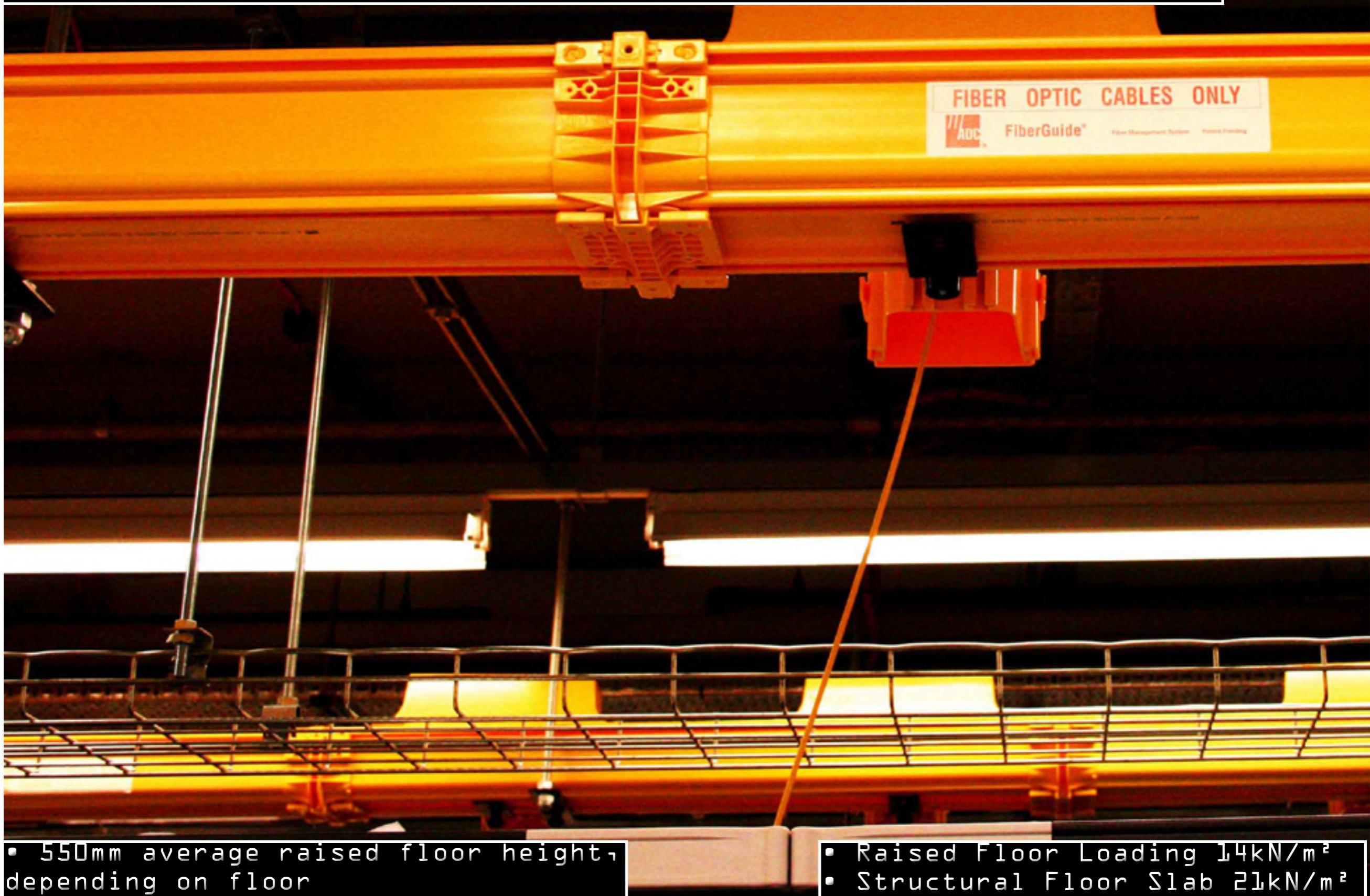


THE DATA SHEET OF A DATA CENTRE

vodprofessional.com

PHYSICAL

- Minimum floor to ceiling clearance: 2,570mm from top of raised floor.



- 550mm average raised floor height, depending on floor

- Raised Floor Loading 14kN/m²
- Structural Floor Slab 21kN/m²



FIRE STRATEGY

- Very Intelligent Early Warning (V.I.E.W.) detection
- above and below raised floor.
- Smoke extract system at 12 air changes per hour.
- Double Interlocked pre-action dry pipe sprinkler system

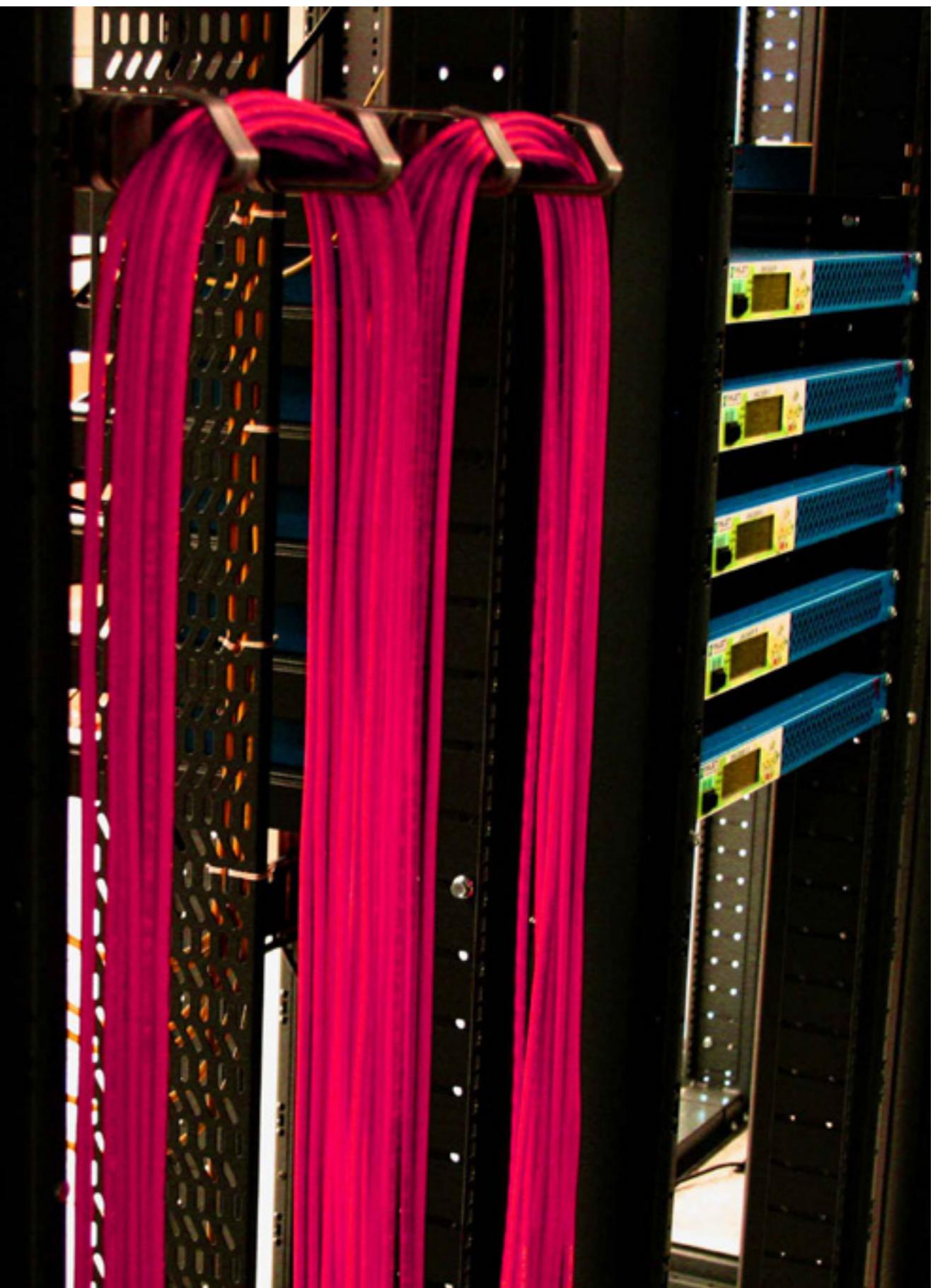


SECURITY

- Remote 24x7 security monitoring
- Full electronic access control system, based on proximity cards with photo and PIN keypads.
- Biometric Palm-scanners in addition for Colocation areas
- Locks on colocation suites and cabinets
- Intruder detection system on escape and riser doors.

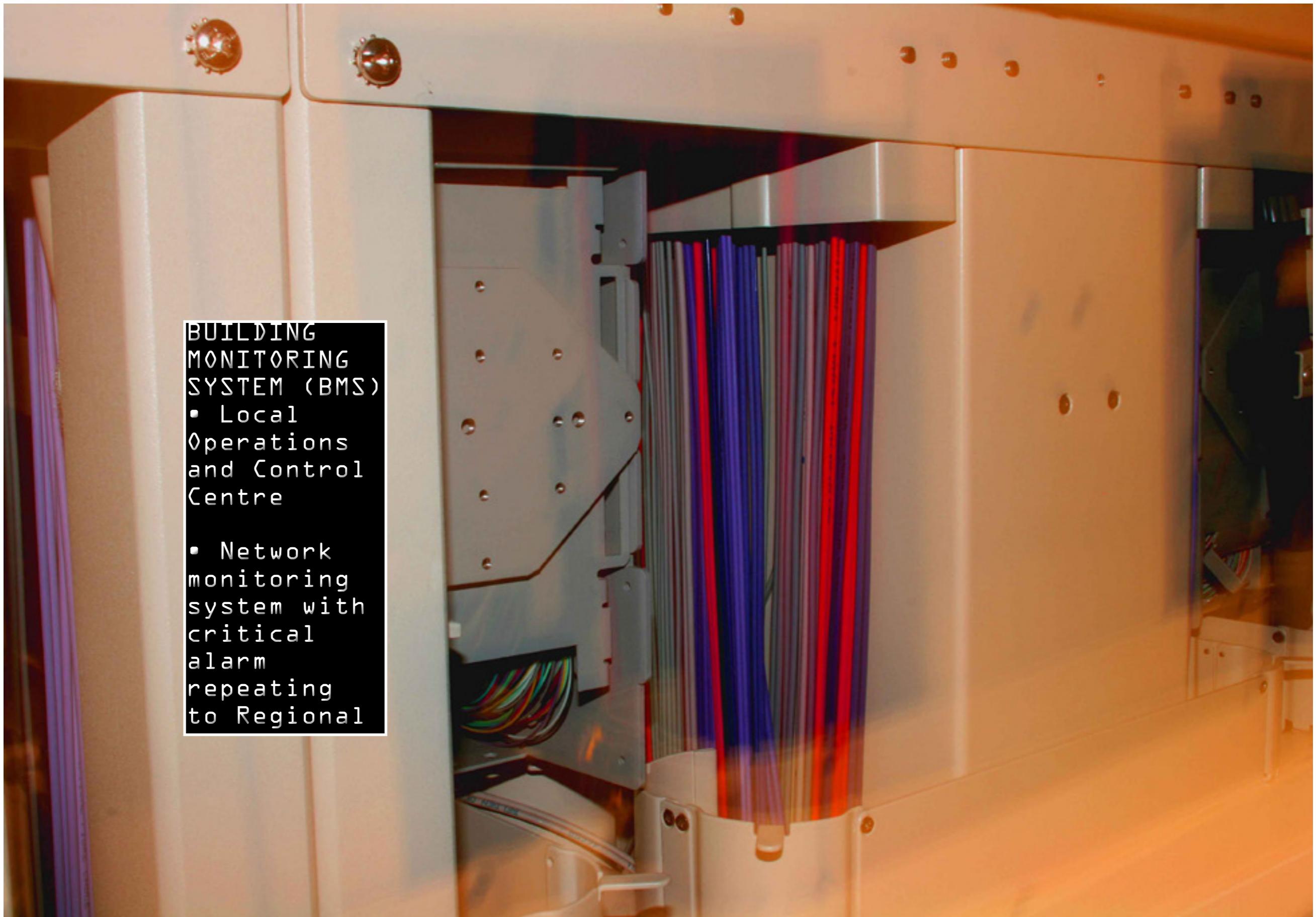


CCTV
• CCTV monitoring and recording of all access points and circulation areas.



**BUILDING
MONITORING
SYSTEM (BMS)**

- Local Operations and Control Centre
- Network monitoring system with critical alarm repeating to Regional

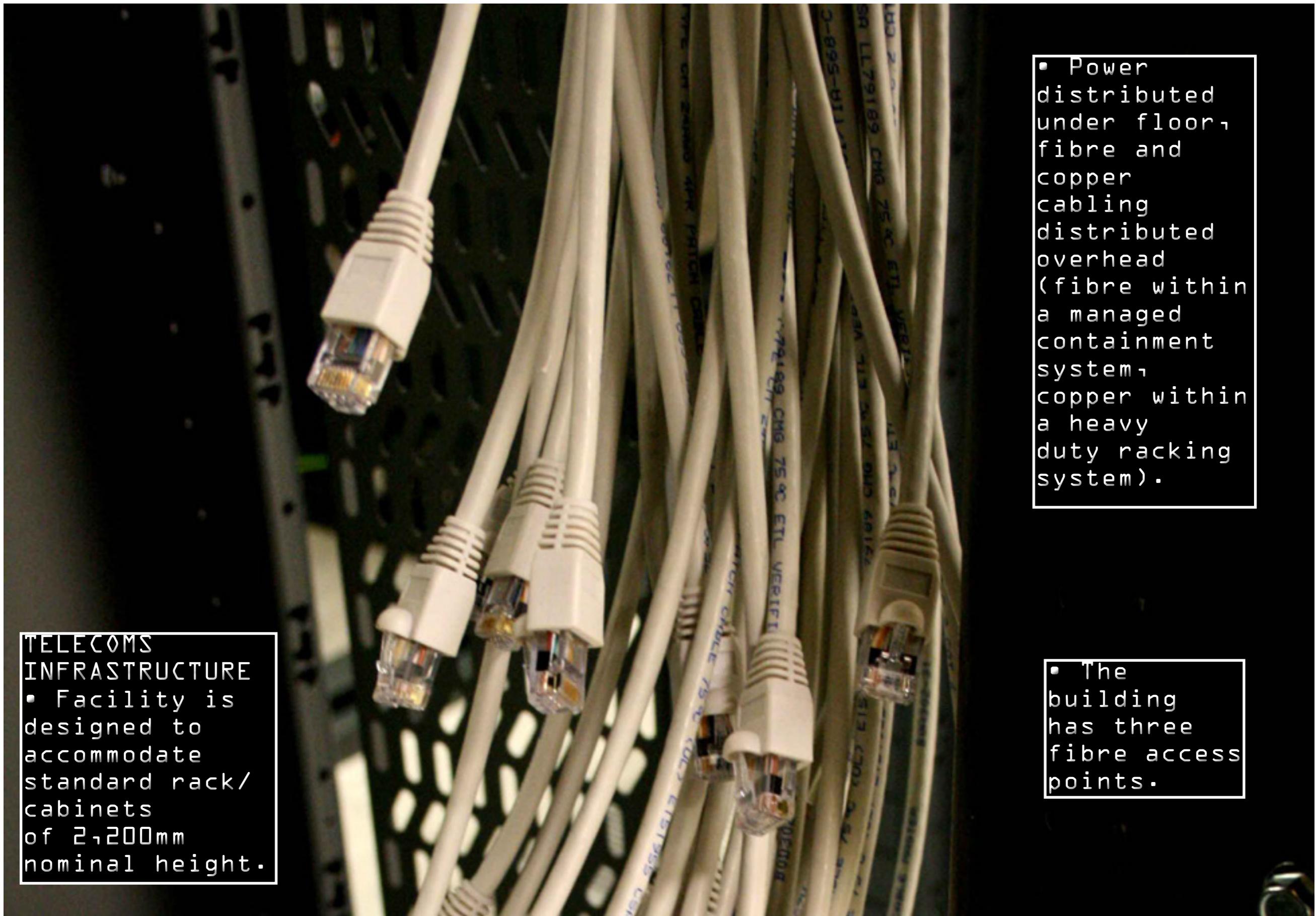




MANAGEMENT CENTRE

- 24x7 local monitoring and logging of temperature and humidity conditions and alarms
- Critical alarm repeating to Regional Management Centre
- Full perimeter under-floor leak detection linked to building monitoring system





TELECOMS INFRASTRUCTURE

- Facility is designed to accommodate standard rack/cabinets of 2,200mm nominal height.

- Power distributed under floor, fibre and copper cabling distributed overhead (fibre within a managed containment system, copper within a heavy duty racking system).

- The building has three fibre access points.

GENERAL FACILITIES

- Dedicated loading area
- Storage area (125 sq.m)
- 2 goods lifts (maximum loads - 3,950kg & 4,400kg)





Facebook TV: The Social View

Jane Seery

Enjoying a TV show used to be something you kept to yourself or perhaps discussed with a few colleagues at work the following day. Now it's possible to let the whole world know in a matter of seconds, courtesy of Facebook's ubiquitous "Like" button. Simply click and inform your friends, friends of friends and, more importantly, the TV show's producers what you've been watching. This simple indicator has become an important function in monitoring audience engagement with a show. Directing the viewer to a TV show's page on Facebook can increase and maintain loyalty by offering additional information and exclusive material. It can also strengthen engagement by enabling fans to communicate with each other and exchange views on their favourite shows.

'Glee', the mega-successful series about a high school show choir, currently has 14.5 million likes and a host of behind-the-scenes video footage to view on its Facebook page. 'Top Gear' has 8 million likes and offers information and discussion on all things "vehicle" from Formula1 racing to the world's first BMX triple backflip. The key to gaining this level of fan support is partly down to offering something unique, in the form of additional material, but also by maintaining a continuous presence.



These shows may not be on screen all year round, but outside of their transmission they are still regularly engaging with fans. "Four Rooms" is a new channel 4 show where members of the public offer unusual and potentially valuable artefacts to professional buyers. A kind of 'Antiques Roadshow' for the Saatchi generation. While on air, its Facebook page provides a running commentary of

what's happening on screen; summing up the offers, snippets of interesting background info on the objects. Most of these threads have about 4 or 5 fan comments below them, however when one of the buyers, Gordon Watson, was recently available to converse with fans and value the objects they offered up, there was a huge surge of interest, culminating in 85 comments. Essentially this was a replication of the TV show, enabling viewers to become involved in a meaningful way. An indication that perhaps if there are ways to replicate other shows, it could prove an interesting and original way to hook in fans.

Other social networking sites have begun to have an increasing impact on television viewing and marketing of shows. Twitter is particularly influential. Widespread use of the hashtag means conversations and topics can be tracked and the 'trending' list confirms the popularity of shows just by their appearance. However, Facebook's potential in TV must be greater. It isn't hampered by a character limit, has video capability and a considerably larger user base than Twitter. This, along with its interactive nature and additional components, such as outside applications and micropayment system means it has the makings of a true cross-platform experience.

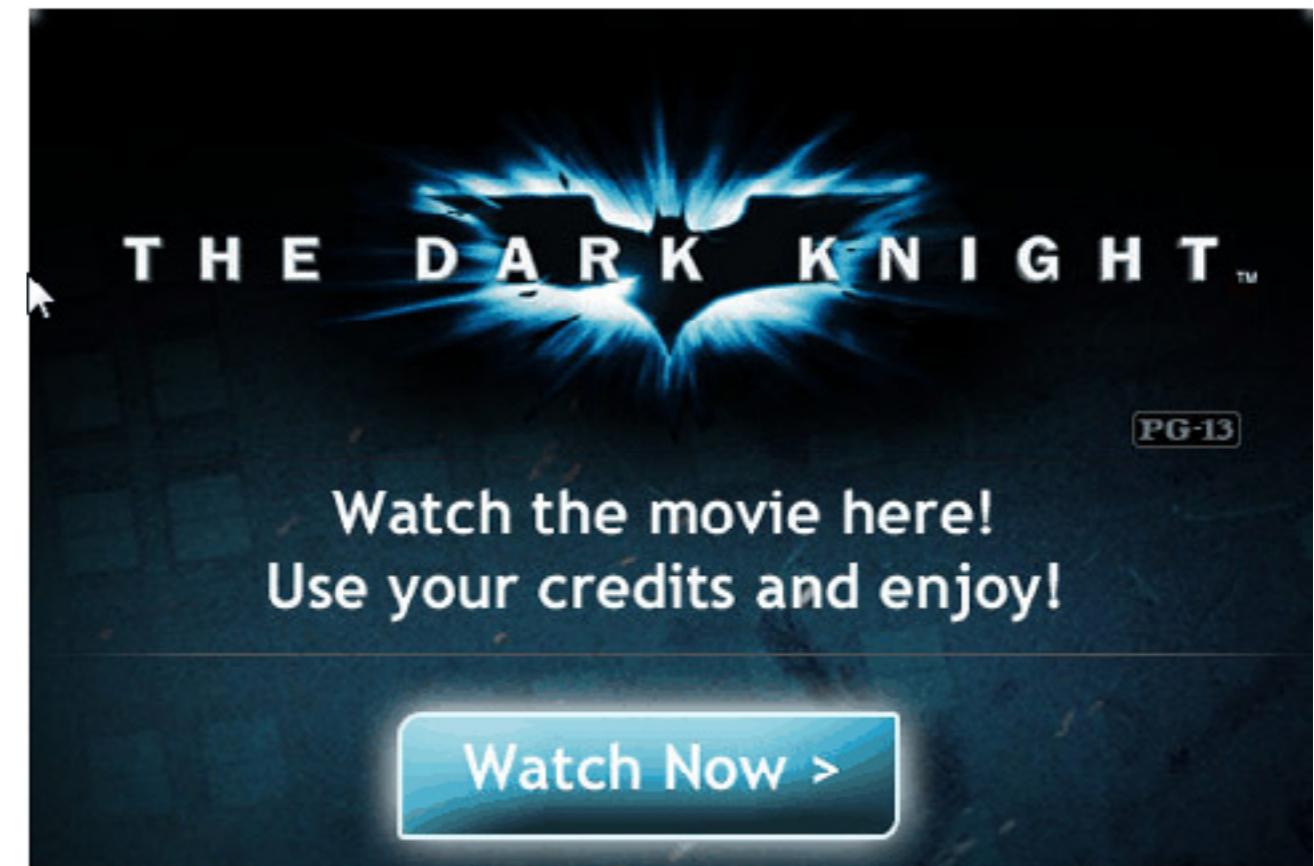
Facebook TV: The Social View

Expansys, the online tech superstore, recently carried out research on Facebook usage versus TV viewing in the UK. It seems the social networking giant wins out with an average two and a half hours a day spent on the site with only two hours spent traditional TV watching. Of the 3000 people questioned, 49% stated that their Facebook page was always 'on', suggesting a fair amount of dipping in and out throughout the day.

The marketing of TV programmes through Facebook is proving successful but what about its future as a platform to view the content? In the spirit of 'keeping things close to their chest', Facebook have so far given little away on that score. Christian Hernandez Gallardo, its Business Dev head, recently acknowledged its use as a social hub for TV shows, but expressed a desire to have broadcasters put their EPG as events on Facebook, thereby letting people RSVP to them to get a reminder. This would utilise personal Facebook data and enable specific shows to be recommended to the user.

Facebook currently ranks third on the web for its number of video viewers, at 52 million. Not bad for a site that is not primarily geared towards viewing content. In a recent experiment, Warner Brothers has just begun renting out movies to view on Facebook. The latest is "The Dark Knight", which can be purchased using Facebook Credits, its new virtual currency. It's also possible to watch some TV shows in full on Facebook, but only if you reside in its country of origin. Then there is the potential to create or commission its own content. So far there's no sign of that happening, but it's possible.

Although Facebook has so far denied it's planning to enter the TV market in a significant way, with the likes of Google, Apple and Microsoft already staking their claim, it is unlikely they won't play some part in its future evolution. Conventional TV viewing may have diminished somewhat in terms of numbers, but it is a pastime



embedded in our society and culturally still commands a lot of attention. One area where Facebook is well ahead of the game, is mobile. It is currently the world's most visited website via smartphone. With mobile TV 'waiting to happen' perhaps Facebook could jump the competition and dominate TV viewing on this emerging platform. **VP**

Jane Seery is a co-founder of Shapeshift Media, a cross-platform startup company, producing content for TV, mobile and web. Her interest in social media and the web is supported by twenty years experience in television broadcast and production.

Jane is also a freelance writer for several websites and online publications including "eHow" and "Inside Guide to London". Her passion for all things cross-platform is revealed in her blog, "TV Goes Cross-Platform".



Airplay – Apple's Trojan Horse to Connected TV

Benedict Evans

Apple has been plugging away at the AppleTV for years. In fact the first version to be called the AppleTV (before that it was the iTV) was announced at the same event as the original iPhone in 2007. It never really got anywhere. When Apple announced the latest version at the end of last year, the reaction was still pretty luke-warm. The price was cut to \$99, but it didn't appear to do anything dramatically cool, such as having an app store or running games, and the content available is pretty small as well. There's no Hulu or iPlayer, though there is NetFlix (as on several dozen other devices), and neither is there a web browser or Flash, so you can't go out and find content yourself. You're stuck with Netflix, iTunes movie rentals and iTunes TV rentals - the only deals Apple closed.

Google took the opposite approach with the Google TV, sticking a proper web browser and flash video support into the platform, so that you can watch anything on the web. Except, of course, you can't. As sure as night follows day, when the Google TV hit the market, the US networks blocked it before anyone could get through the 34-step setup process. Odd that no-one at Google Googled 'channel conflict'. So, the design compromises that Google made turned out to deliver no

benefit at all. The Google TV supports Flash, which pushes the price of the box to over \$300, but it still isn't fast enough to run Flash games, just video, and all the decent video is blocked. Meanwhile, the web browser use model requires a QWERTY keyboard balanced



on your knee: it doesn't seem even to have occurred to Google that this might not be a great UX model in the living room.

So far, so obvious. Back to AppleTV. If you scroll down the product page there are a bunch of miscellaneous 'nice-to-have' features: you can stream photos from Flickr, you can watch podcasts - oh, and Airplay. Airplay lets you send any music, photos or video on your iPad, iPhone or iPod Touch straight to an

AppleTV. It also works with streaming video. You can start playing content on your Apple device and press 'send to AppleTV' - and without further fuss it starts playing on your TV screen via the AppleTV plugged into it.

In other words, if you can watch video on an iPad or iPhone, then you can watch it on an AppleTV. No qwerty keyboard, just that lovely touch-screen device you already own. This is a far better interaction model than a connected TV, Google TV or Youview. Instead of putting the UI on the TV screen and trying to navigate it with an infrared TV control (or even something really clumsy like a qwerty keyboard), the UI is a touch screen in your hand. Find what you want and then press 'send to my TV'.

This becomes even more compelling with a feature announced as part of the next version of iOS, the software that runs on the iPhone, iPad and iPod Touch. iPads running version 5, while will be released as a free upgrade in the autumn, will be able to use the AppleTV as an external display for any app. This will probably also work on the next generation of iPhone and iPod Touches, due at the same time.

This means any App can be sent to the TV with one button (unless the developer specifically

Airplay – Apple's Trojan Horse to Connected TV

disables it). Such as, say, any game. So your iPod Touch game can now be played on the TV in your living room. Even more, there's an API to allow a developer to show one thing on the device and another on the TV. So you can use your iPhone as a controller for the iPlayer, or for a game, or to view related content. The implications of this for the Wii or 'Red Button' should be obvious.

Of course, TV companies can still block this if they really want to - or they can plug it into their existing paid services, such as Hulu Plus, which at least attempt to bypass channel conflicts. Meanwhile the customer has only spent \$100 and everything works. And \$100 is



much easier to sell to people who, if they care about TV at all, probably already have a STB from their pay platform provider. Indeed, thinking about the AppleTV as an iPad accessory is probably as useful as thinking of it as an over-the-top video platform.

The obvious next step is for Apple to license Airplay to TV manufacturers. Apple has already licensed Airplay for audio to hifi manufacturers; the cost for TV makers would be minimal, since they

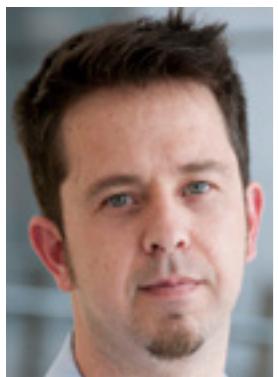
already have much of the underlying functionality built-into their connected TVs.

For Apple, this solves the route to market problem in the living room. It doesn't need to compete with subsidised CATV STBs, nor get into the (capital intensive, low margin) TV business itself. For TV manufacturers, Airplay has very little strategy cost, unlike Google TV or Youview: there is no requirement to take someone else's UI, nor to give up control of the platform, nor to build a \$2-300 memory and processor-hungry computer into the TV. They can implement Airplay in much the same way that they implement Netflix, LoveFilm or Pandora.

For Apple, this is a typically oblique solution to the 'last ten yards' problem of how to get internet content onto the TV screen. Rather than wrestling with the existing value chain and trying to solve the problem of how to control internet content with an infra-red remote control, it makes those problems irrelevant. **VP**

Benedict Evans is a consultant at Enders Analysis where he specialises in internet, digital media and telecoms. Benedict also runs a popular tech commentary blog site (<http://www.ben-evans.com/>).

You can follow him on Twitter @BenedictEvans.



IPTV is Dead, Long Live TVoIP

Florian Pestoni

For more than a decade, we've been hearing about the impending replacement of traditional video distribution methods with a new, better system called IPTV. This was supposed to bring a large number of new features to the managed networks and associated set-top boxes used by telcos and pay TV operators. There have been several successful deployments, notably AT&T's U-verse, but the promise has been largely unfulfilled: we haven't seen the innovation that was supposed to be brought about by this technological change.

In the meantime, innovation has been on overdrive on the open internet, both in terms of technical advancements and business model developments. The last few years have seen the emergence of large-scale streaming from companies like Hulu and Netflix, "catch up" services such as the BBC's iPlayer, indie movies from new sites like SundanceNow, access to long-tail content via YouTube and others. The range of devices used to access this content over the internet have also expanded to include PC/Mac, smartphones/tablets, and even TV sets, BluRay players and set-top boxes. In this space, Flash is the #1 platform for online video, enabling unparalleled reach and interactivity.

Today, this "over the top" distribution is primarily about video-on-demand. This meets consumers' desire for time- and place-shifting, with the convenience of watching a movie or program on each viewer's own schedule and on the device of their choice. However, the underlying technology has now evolved to the point where linear content can also be delivered in real time over the top, opening



drastically more flexibility for consumption. We anticipate that over the next few years, there will be a major shift from traditional television delivery over managed networks to distribution over the open web. And with internet-connected TV sets getting smarter and more powerful every year, such as those running Adobe's Flash/AIR runtimes for Digital Home consumer electronics products,

consumers will be able to "watch TV" with radically more options for content sources and with a richer user experience.

We call this TVoIP or TV over Internet Protocol. This is meant to be much more than a mere transposition of the IPTV acronym; it is an intentional reference to VoIP (Voice over Internet Protocol), which we believe is a very good analogy of the changes that are underway in the video space. In the case of VoIP, which reached mainstream availability over the last decade, at a bare minimum it had to offer the equivalent level of service to the technology it was attempting trying to displace. For telephony, the legacy technology was switched voice, where bandwidth was allocated to each phone call; while this continues to be in use, VoIP is now widely available worldwide from a large number of service providers. However, replacing one transport technology with another is only the beginning; VoIP has made possible significant business model innovation, additional services such as speech-to-text and text-to-speech, and expansion to new points of consumption.

TVoIP will allow pay TV operators who are still using "traditional" technologies such as DVB or QAM for switched digital video distribution to leapfrog over companies that have adopted

IPTV is Dead, Long Live TVoIP

IPTV. On the other hand, IPTV providers can leverage their investment and extend that to open Internet delivery. But that, again, is just the beginning.

With TVoIP, distribution is largely decoupled from the actual delivery infrastructure, so we can expect to see an explosion in the sources for TV-like experiences. Any content aggregator with access to premium content can offer TV programming directly to consumers, under a variety of business models including advertising, subscription, and surely others that have yet to be invented. If the introduction of cable and satellite made it possible to go from four networks to hundreds of TV channels by changing the economics of content distribution, TVoIP will usher the era of tens of thousands of channels that can be arbitrarily “niche”—think of it as the long tail of television.

The user experience is also guaranteed to be very different from the traditional “switched” experience. For starters, consumers will have greater choice over which devices they use to “watch TV”; these devices are likely to be purchased at retail stores, offering an alternative to leased set-top-boxes. Interactivity will go well beyond channel up/down or the EPG grid, enabling rich interactions with content as well as with other users. Content and advertising can be personalized to a degree that neither switched nor IPTV delivery can support today.

There still remain some significant technical and business challenges to make this a reality. The current network infrastructure for consumer Internet delivery may not be capable of carrying this amount of content economically without some significant changes in business model. For instance, today Netflix’s VOD distribution accounts for around one third of all Internet traffic at peak time, according to some measurements. However, online video watching accounts for only about 5 hours a month for the average consumer, compared to close to 5 hours a day for “traditional” TV. There is a 30X gap between the two,

and TVoIP aims to close that gap, which will only exacerbate bandwidth requirements. Telcos are already looking at models to monetize this increase in bandwidth requirement, which will be necessary in order to fund the network expansion required.

Another significant aspect has to do with content rights and the technologies used to manage and enforce those rights. Traditionally, rights for linear delivery have been negotiated separately from rights for Internet delivery, but that model is already being tested by a number of companies willing to push the envelope ... and ruffle some feathers in the process. On the technology side, traditional “conditional access” providers have dominated the protection of content distribution over managed networks, but have not been able to make serious inroads into protection for Internet delivery.

Technologies such as Flash Access, which already meet stringent studio requirements for premium content, are achieving incredible reach on consumer-owned devices (and, increasingly, over operator-owned equipment such as set-top boxes). The upcoming version of Flash Access will incorporate significant new features to enable large scale protection for linear content, greatly expanding the type of experiences and business models that can be offered over the top.

The roll out of TVoIP will not happen overnight, and we don’t anticipate that traditional distribution technologies will be turned off any time soon, but the evolution to this model seems inevitable. Adobe’s Flash Platform is well positioned to help accelerate this transition and we are already working closely with early adopters to make TVoIP more than just a soon-to-be catchphrase. **VP**

Florian Pestoni is Principal Product Manager for Adobe Flash Access. You can follow him on Twitter @florianatadobe.



A Bundled Charging Model for Cinema, DVD & VOD?

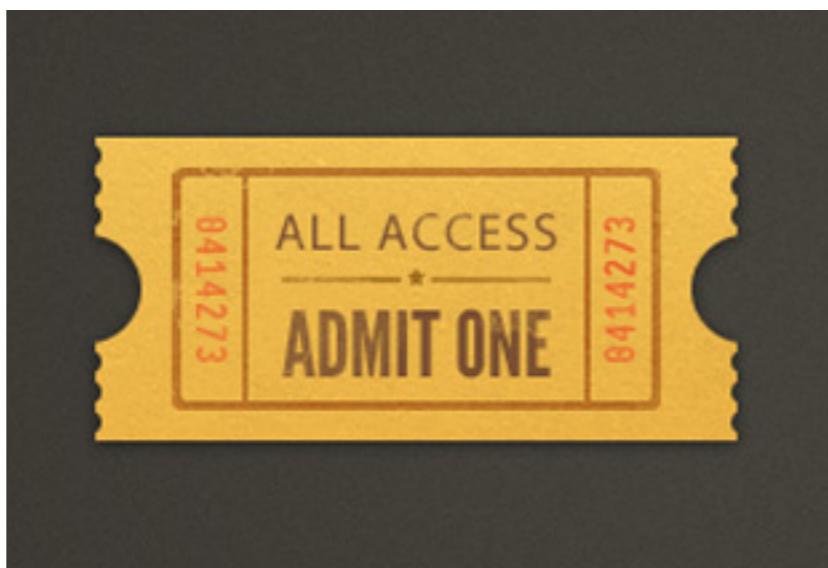
Kauser Kanji

In our 'Month in Review' section we report on a row which has lately been brewing between the Hollywood film industry, DVD makers and distributors and suppliers of video-on-demand services. Indeed, you may be familiar with the story already but if you're not here's a synopsis: in April, the world's biggest satellite company, DirecTV, with almost 30 million customers across the US and Latin America, announced that it was launching a "premium VOD" service called 'Home Premiere' which would let subscribers watch a movie on their television sets just 60 days after its theatrical release.

Once bought, the movie would be available for 48 hours and would cost the customer \$29.99. Warner Bros, Fox, Sony and NBC Universal were all part of the deal and although DirecTV were the pioneers, other pay-TV giants like Comcast and VUDU would soon be able to offer the package to their subscribers too.

Why did the studios do this? Mainly because DVD sales are falling. And fast. New figures released by DEG: The Digital Entertainment Group (also in April), showed that sales of DVDs in Q1 2011 were down a staggering 20% to \$2.07bn. Admittedly, Blu-ray sales were

up but overall consumer spending on home entertainment was also down from \$4.6 to \$4.2bn.



And the fallout? Theatre owners were furious because by allowing a movie to move to VOD only 60 days after its release they would have less time to make money from it. Why should people come to the cinema, they asked, when they could wait a couple of months and watch the same film in the comfort of their own armchairs at home? The studios countered by saying that most of a movie's ticket sales are made in the first 3 – 4 weeks post-release and in fact, the majority of movies aren't even playing in cinemas by the end of the second month.

In the days since a number of prominent film directors like James Cameron (Avatar, Titanic) and Peter Jackson (Lord of the Rings, King Kong) have come out in favour of the cinemas suggesting that lower box office receipts will lead to smaller budgets for moviemaking. The studios however have pressed on citing the need to make up for the shortfall in DVD revenues. Just last week, Hollywood mogul, Harvey Weinstein, praised Netflix (the biggest VOD service in the world) and said that he believed VOD would become increasingly important to the film business.

So what will happen next? Will customers embrace the 'Home Premiere' service? How quickly will DVDs and Blu-ray become obsolete? And does cinema itself have a future? Surely it does but how will it adapt?

I posed some of these questions to the BAFTA-nominated film producer, Deepak Nayar, in a fascinating interview published on VODProfessional.com in May. Nayar recalled a conversation he'd had with a film distribution company where he proposed a radical charging model for cinema, DVD and VOD access all rolled into one bundle. Nayar said:

"I asked them, How much is a cinema ticket in your territory?"

A Bundled Charging Model for Cinema, DVD & VOD?

They said "8 dollars".

And what does a DVD cost? They said "10 dollars".

And how much does the same thing on VOD cost? They said "2 dollars".

Twenty dollars in total. I said what if you offered the consumer ALL of these options for \$14.95 to see a movie on any platform instantly so there's simultaneous release in the theatre, on DVD and VOD. They were shocked by the idea of all three releases at the same time but I asked them "How often does an individual who watches a film in a cinema buy the DVD?"

They replied, "Not very often".

In theory his idea suggests a shortfall of \$5 from 'triple-pay' users who'd watch a movie at the cinema, buy it on DVD and catch it again on VOD but, as Nayar says, given that most people don't buy DVDs is it worth the theatre owners and VOD companies trying to work together to maximise customer revenues around the theatrical release of a movie when its marketing and publicity are freshest in the mind? DVD retailers might not go for it but then companies like HMV reported a sales dip of 14% at the beginning of the year so maybe they'd be open to the idea of evolving their businesses.

I'd love to hear your thoughts on Twitter @vodprofessional.

Incidentally, the theme of next month's issue of VOD Professional magazine is 'Monetisation' so we'll be exploring this subject again and taking a look at the various revenue models used by the industry. **VP**

Write for VOD Professional!

Whether you're an industry commentator, a blogger or you just have something to say to the video-on-demand community then you could write for us.

In the first instance, send an email to press@vodprofessional.com telling us a little about yourself and what you'd like to talk about and we'll get back to you within 48 hours. Thanks.



Follow VOD Professional on Twitter for industry news, reports, statistics and gossip.

You'll be better-informed plus you'll look cool*.



@vodprofessional.com

* When you bestow wise words on your colleagues from all the gems of knowledge you've picked up.

Pass Notes in Case You Missed the Story



The most requested television programme on the BBC iPlayer in May was the 4th episode of Season 6 of the new 'Doctor Who'. Written by novelist, Neil Gaiman, the Tardis comes to life in human form. It was a good one.



Nielsen's new 'VideoCensus' rated YouTube top in 4 of 5 metrics (unique visitors, total streams and minutes served and streams per viewer). TVCatchup came first in viewing time per person.



Coverage of the Royal Wedding was streamed 72 million times by YouTube on the big day. Meanwhile, the BBC had a peak audience of 20 million while ITV, which won plaudits for its presentation, could only muster 6m viewers.



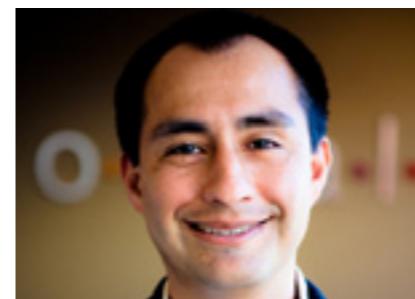
Germans watch more video online - 20 hours per user per month - than any other Europeans according to comScore. The Brits are lagging behind with just 17 hours per user per month. Russians watch the least online video.



O2 delivers the fastest average mobile broadband speeds says Ofcom with a low / high download speed of 2.4 Mbits per second and 2.9 Mbits per second respectively. Orange was bottom of the list.



A row was brewing in Hollywood between the film studios, DVD retailers and cinemas after a premium VOD service was launched by DirecTV which lets users watch movies at home just 60 days after their theatrical release.



Bismarck Lepe has possibly the best name in the world. He's also the co-founder of Ooyala who helped create the new 4oD iPad app. Lepe used to work at Google where he was one of the architects of Google Adsense.



Level 3 gave VOD Professional a tour of their data centre in London. We're geeks so it was really exciting. On any given day up to 30% of the world's internet traffic passes through Level 3 servers.



Asha Oberoi, MD of ITN Source, used to work at BBC News Online in 2001 when online video was introduced. One of her bosses told her that broadband would only be good because it would help speed up text delivery on the web.



And finally a real 'And finally'. VOD Professional goes out to over 23,000 people so whether you love it, loathe it or remain magnanimously indifferent, tell us what you think on Twitter @ vodprofessional and we'll try to make it better.

Arrive at work ready to go



Kalkhoff
MY BIKE
exclusive to 50cycles.com

Kalkhoff's multi award-winning electric bikes slash commute times, flatten hills & banish headwinds. They're fast, reliable & a lot of fun. Learn more at 50cycles.com or call free on 0333 900 5050