

AGENDA

- Intro
- IP Transition
 - Technology choices
 - How Partners can help
- Cloud Adoption
 - Technology choices
 - Infrastructure and software
- The Team
- Appetite for risk and Cost
- Summary





2000

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Leave University Work with many with Broadcast Engineering degree Work with many of the major Broadcasters SSVC, BBC, ITV

Work with many of the major Broadcasters SSVC, BBC, ITV and AVID building and supporting major systems around the UK and the world

2009-2011

Joined Sky in their projects dept, Built the full HD sustainable, tapeless Sky Studios facility 2013 - 2015

Began moving compressed video into IP

2016 - 2018

Launched the largest multivendor uncompressed system in Europe 2019

Launched 4K in IP

2019 - 2023

Developed and deployed the European Cloud playout platform

2024

Started Hello, I'm Martin, providing consultancy services to large customers, currently working with Amazon Prime and Arqiva





SDI P CLOUD

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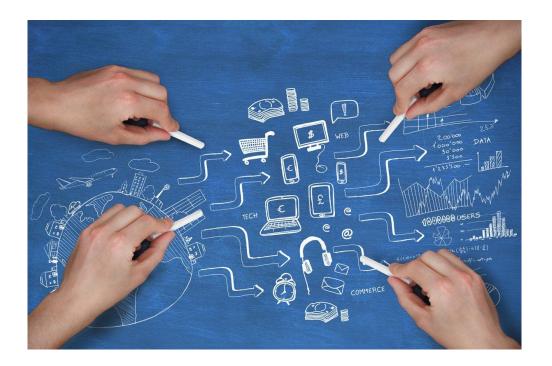
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THEMES

What do all of these transitions from SDI to IP to Cloud have in common.

Not all of them are cheaper than the one before **but they offer....**

- Flexibility
- Scalability
- Frame rate, standard and resolution agnostic
- We'll also talk about how the role of a partner, supplier or integrator has changed along the journey





INTRODUCTION OF IP

BUSINESS OBJECTIVES

Born out of the need to expand systems which were already full

 Multiple Sports and News customers with rapidity changing requirements

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TECHNOLOGY OBJECTIVES

Push the boundaries of what was possible.

- Modularise as much as possible
- Ensure scalability No fixed size
- Open standards

TECHNOLOGY CHOICES

COMPRESSED IP

- Core switching choice a lot easier
- No SDN so support model a lot closer to how it always was
- Still Hardware/appliance based
- First introduction to TAG
- More of an evolution than a big change

TECHNOLOGY CHOICES

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UNCOMPRESSED IP

- Core switching choice now becomes hard with the large bandwidths involved
- SDN now required so support model starts to blend with your IT team
- Still Hardware/appliance based
- Started to look for a more COTS solution
- More of a step change for the teams

MANUFACTURER CHOICE

WE LOOKED AT A LOT SMALLER MANUFACTURERS

- Based on our initial experience with TAG
- They must be cohesive and work together, interop became a bigger issue
- Best of breed was important as always



HOW DID PARTNERS ADD MORE VALUE IN AN IP TRANSITION

As a large business with a legacy to keep running when new technology comes in you can't move quick enough to up and reskill

- Advice and thought leadership on what is required
- In-depth knowledge of the IP stack
- Lab environments ready to use
- Our start to move to software, licensing became harder



CLOUD ADOPTION

ORIGINATION

BUSINESS OBJECTIVES

Replace several end of life on prem playout systems across Europe with one platform

- Consistent development across
 European teams
- Consolidation of support
- Simplify operations

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TECHNOLOGY OBJECTIVES

Push the boundaries of what was possible.

- Disaster recovery built in as standard
- No more heavy lifting on upgrades
- Scalable





INFRASTRUCTURE

THINGS TO THINK ABOUT

- Exploit as much cloud SaaS as you can
- Build to automate IaC
- Build for spikes in demand
- Understand how much resource you will need at that spike as the cloud isn't infinite



SOFTWARE

THINGS TO THINK ABOUT

- All your software products to be API first
- Ideally CPU only to keep you flexible
- Build with security, data and observability at its core.
- Flexible Licensing models
- Build vs Buy
 - Core products buy
 - Integration with backends build



LINEAR SERVICES ARE DIFFERENT

Things to think about

- Linear feeds are still very on-prem centric
- Cloud to Ground and vice versa introduces more delay and expense
- JPEG XS Expensive on bandwidth and instance size,
 still not universally accepted, but low latency
- Low latency Monitoring feeds are a must

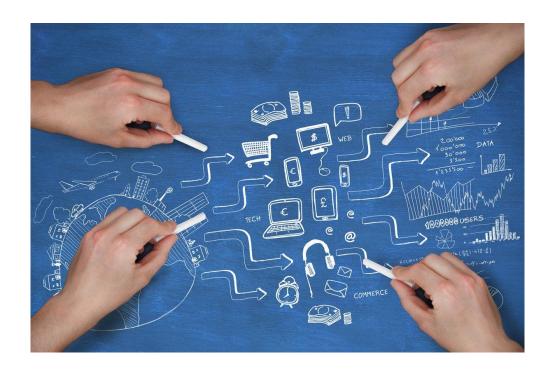




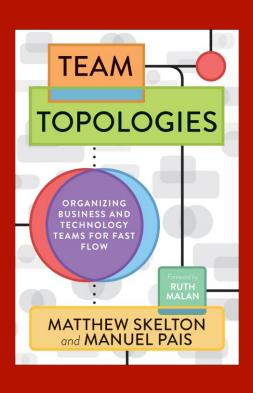
ENGAGEMENT OF YOUR CURRENT TEAM

Not just moving to cloud, you will be moving your whole department to software

- Don't lose your broadcast knowledge
- You need a mix of skillsets
- Feedback loops
- Become product focused with roadmaps



THE NEW TEAM



- Devops with a pinch of salt
- Jira and iterative development
- Read 'team topologies'
- Use a mix of Enabling teams and traditional training
- Mix it up your existing teams



APPETITE FOR RISK

YOU CAN HAVE IT CHEAP

- Think about regions vs availability zones
- Hybrid workflow to reduce cloud costs and change your redundancy model
- Built in DR

BUT YOU WANT IT RELIABLE

- You can change as you go along, maybe one size doesn't fit all your services
- FAST required a slightly different redundancy model to a sports channel
- Make sure all of your stakeholders and leadership understand the decisions you are making.

FINANCE

- Use all of the cost savings you can from your cloud supplier
- Don't forget to factor in your non-prod and dev environment costs
- Be across it, understand what everything is
- Tagging policy from the beginning and make it consistent
- Show everyone in the team what it costs, don't keep it to senior leadership



SUMMARY & TAKEAWAYS

CLOUD IS VIABLE

- IP everything as early as possible
- It's not just a tech refresh, it's a new way of working
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- Make sure your workflows are appropriate Do your research
- Make sure everyone in the company understand what you are doing
- More expensive than you expect Go in with your eyes open

WHAT VALUE CAN YOU ADD

- Thought leadership on the Tech
- Provide value add by increasing your skillsets to more than your customer has
- Can you add into the move from project to product?
- Can you provide inight into the costs

THANK YOU

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