



EUROSPORT TECHNOLOGY TRANSFORMATION

Case Study

Building a Private Cloud for Live Production

Toda

▼ Ageing infrastructure

- Limited ability to enable change
- Limited flexibility and difficult to scale
- Technology not able to support new growth
- Escalating operating cost



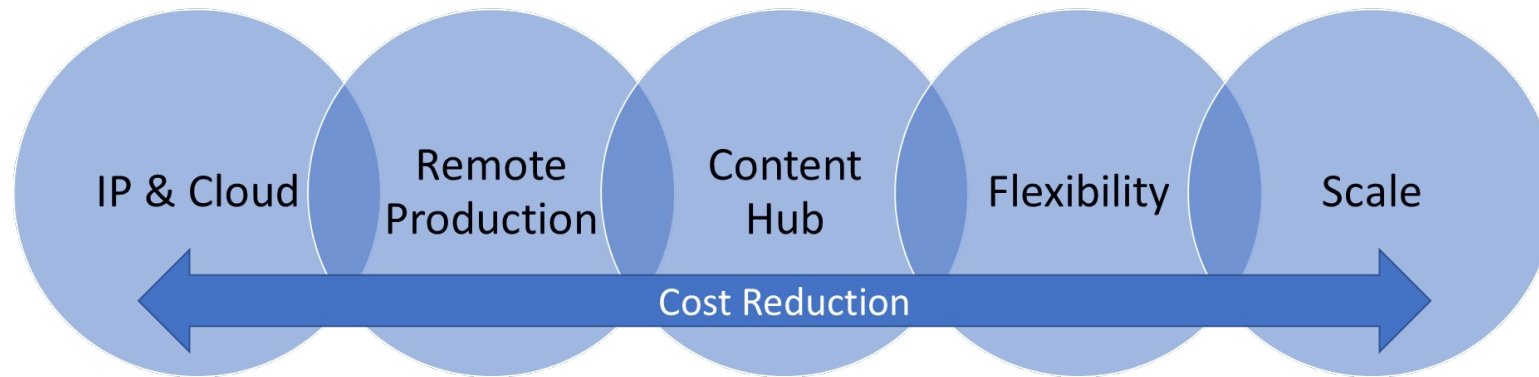
Future with ETT

- New infrastructure and technology approach enables location and business flexibility
- Common content platform for linear and digital
- Lowers technology cost of new services
- Enables faster time to market for new services and consumer testing

Cost savings, location flexibility and a true Digital/Linear Production environment

Key Technology Challenges

- Transition to 2110 and AES67 audio
- Leverage public cloud and cloud stack where possible
- Centralized playout
- Central MAM and Content Storage
- Remote production
- Event-based production
- Resource management
- Live data graphics
- Ability to provide customized feeds for all digital platforms and linear services

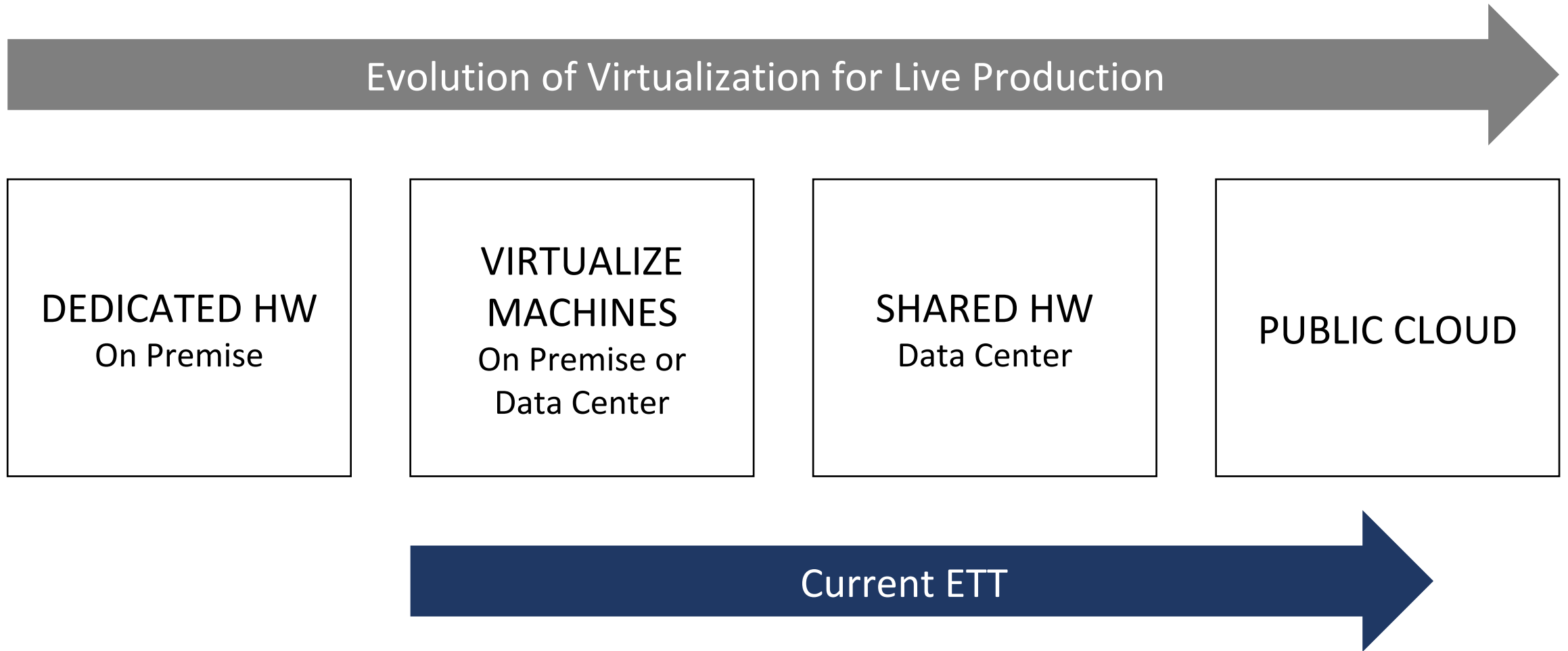


Key Project Challenge – Time

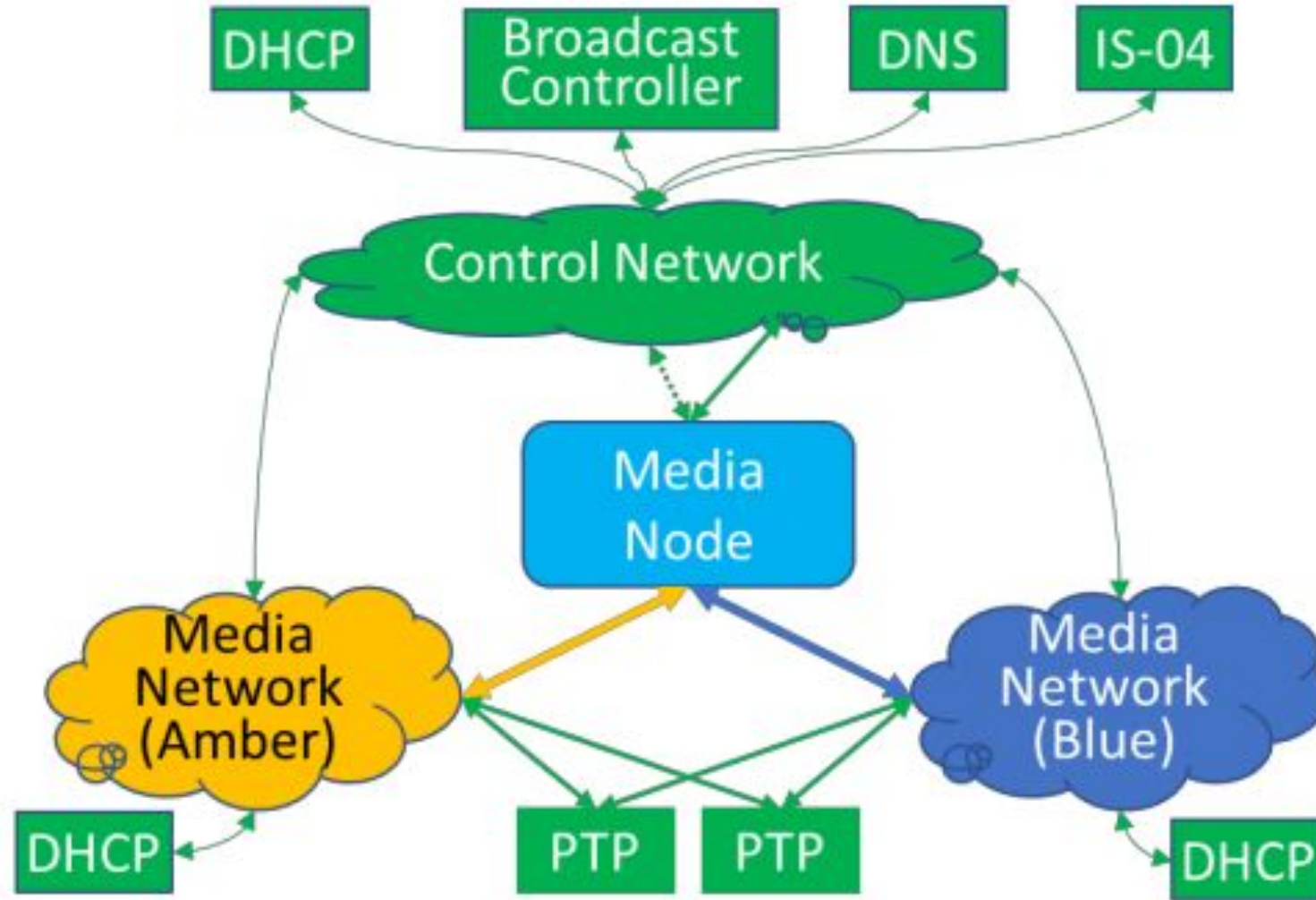
- Cloud approach for physical kit
 - Flexibility, scalability, redundancy, efficiency, evolution
- Common access to all content with distributed operations
 - Unrestricted support for digital growth
- IP provides the scale and flexibility needed
 - 10s of 1000s of video flows
 - Up to 32 discrete audio pairs per video
 - Dynamic system deployment and orchestration
- Remote production for all – from simple to complex

- Huge amount of change and an aggressive project plan
- Vendor support for 2110 still evolving
- Industry has focused on IP and not IT
- No best practices for system and configuration management
- Breaking new ground with cloud deployment approach for traditional production kit
- Industry consolidation and transformation

Key Project Challenge – Time



JT-NM TR-1001 – A Great Vision – But Not Reality Today



- Embrace, support and evolve IP open standards
 - NMOS, JT-NM TR-1001
 - We are fully supportive and hope that the industry and vendors enable greatly reduced installation times and simplified deployments
- Move from "IP Thinking" to "IT-Thinking"
 - IT-Thinking with regard to media is required to meet ETT's vision
 - NMOS and JT-NM TR-1001 provide some good building blocks – but limited deployments and no defined industry best practices makes is very challenging

The industry needs projects to evolve and define best practices

- Create best practices for system management
 - Dynamic system configuration/management by spreadsheet is current practice (but not best practice)
 - There is a need for an IT-based approach to this problem using IT current best practices
- Encourage and evolve IT and Cloud approaches leveraging proven models
 - DNS, DHCP, CloudStack services, Micro Services and Cloud/IT application management/deployment
 - Aspects of system configuration and ongoing management is undefined
- Industry Partnership
 - Perhaps various industry organizations work together to address these issues?

The industry needs projects to evolve and define best practices



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