

Case study: PLAZAMEDIA

IP-based Broadcasting Center

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About me!



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Business objectives and benefits

The project

The solution

Summary



About PLAZAMEDIA

- Germany-based content solution provider (since 1976)
- Leading producer of sports TV in the German-speaking area
- Clients include:
 - Public and commercial broadcasters
 - Platform operators
 - International sports associations
 - Sports rights agencies
 - Enterprises

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PLAZA
MEDIa GROUP

WEDIa ГРУПП



Move in 2018 to new broadcasting center
in Ismaning near Munich, Germany

Create a **more scalable and future-proof** media network
– based on IP

Enable **faster and more cost-effective** deployment of
new services

Share resources to reduce cost

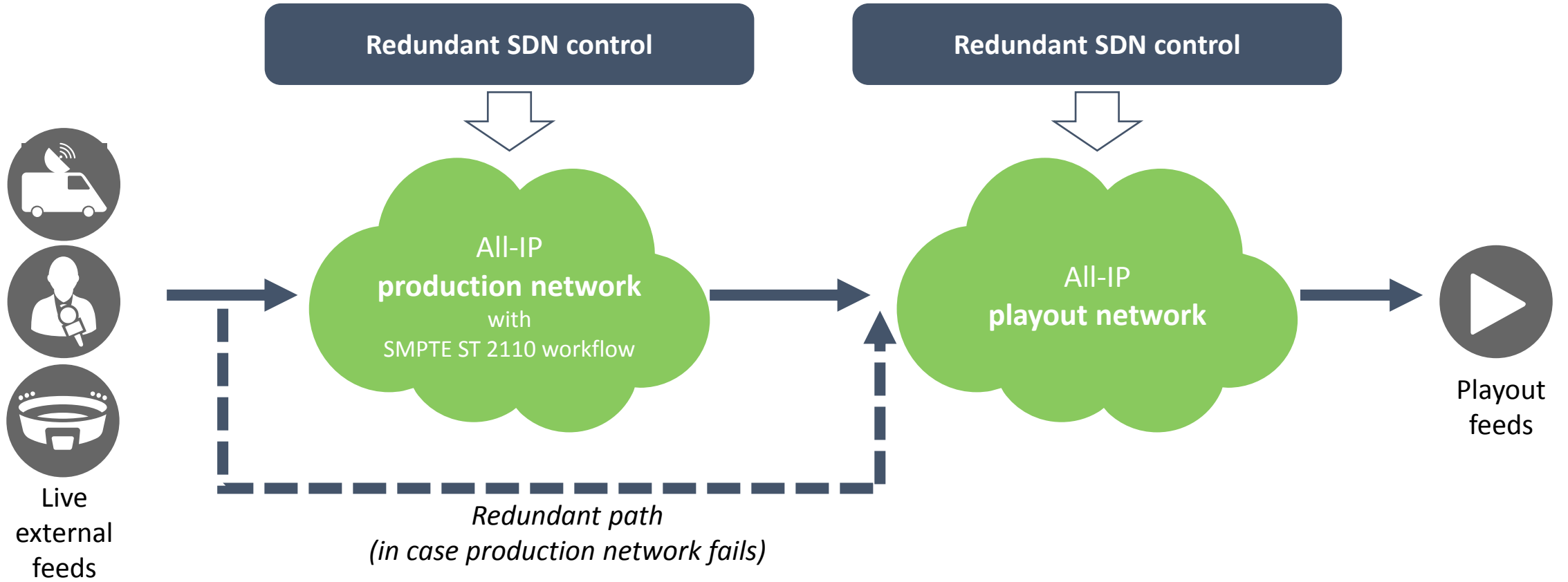
Neveon Confidential



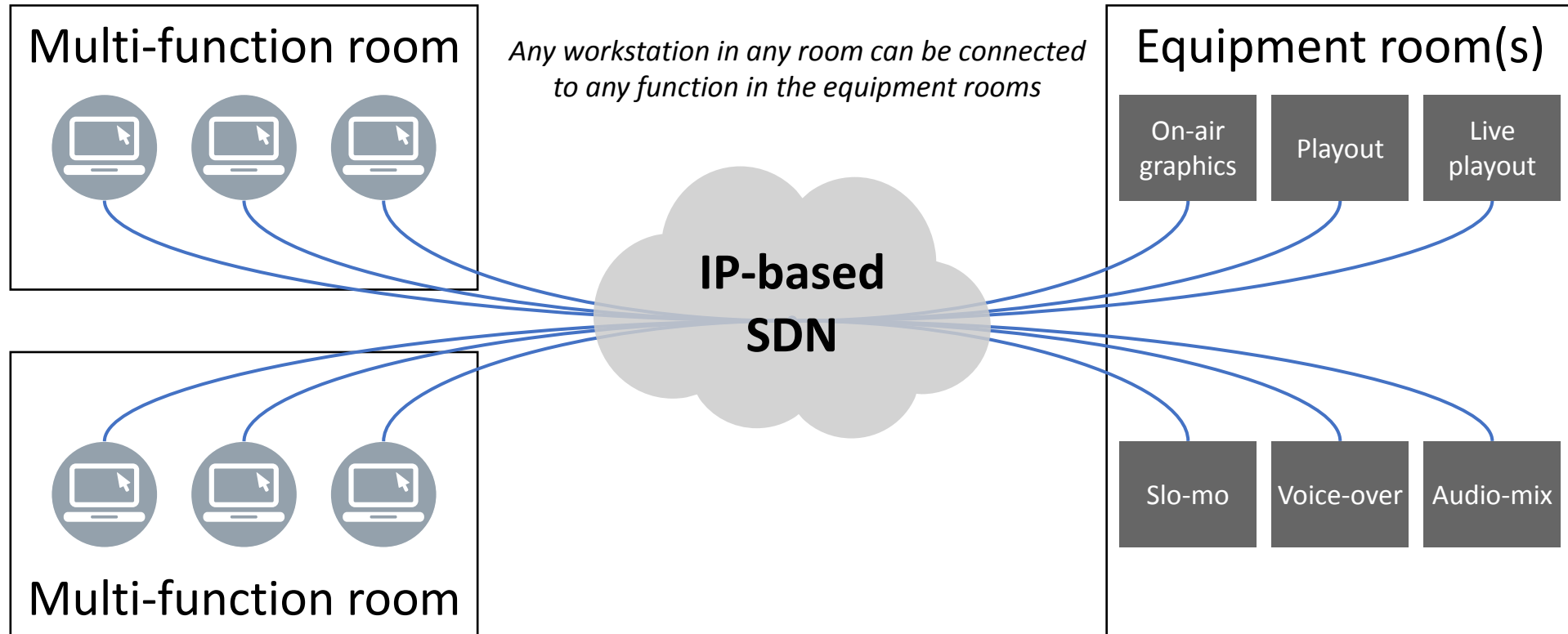
“ We are leaving behind the world of conventional broadcasting center technology altogether, consciously opting against a hybrid solution and creating the most modern and future-proof system conceivable ”

PLAZAMEDIA chairman, Jens Friedrichs

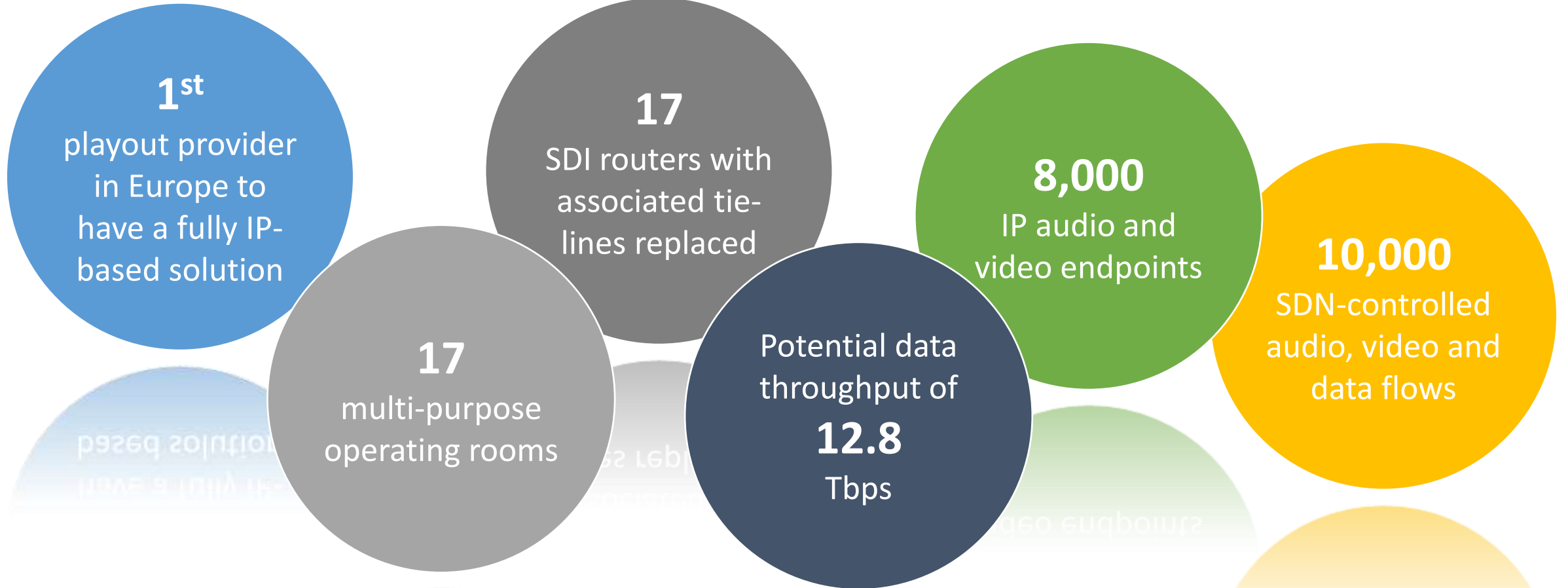
Scope of project



Ultimate flexibility multi-function room



Some numbers from the completed project



Benefits

Opportunity for increased revenue

More services and productions with the same resources (people, equipment, etc)

Reduced costs

Fewer costly operational tasks, e.g. tie-line management

Future proofing

Scope for cost-effective expansion and scaling

Able to support technological evolution (e.g. 4K/UHD, AR)

Lower carbon footprint

Energy and space efficient

Business objectives and benefits

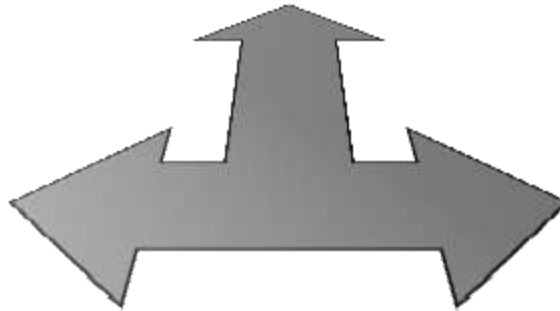
The project

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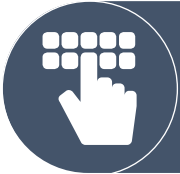
Project partnership





Previous project with Nevia & partner

Positive experiences with earlier Remote Production project (same technology)



IP-fabric control

Nevia VideoIPath



SDN flexibility

Ability to hook up “unknown” equipment as virtual devices



Optimum use of resources

Bandwidth management for best performance



Future proof

Commitment to broadcast standards driven like NMOS

Project elements

Guides



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Media network design

PTP sync distribution design

System integration

Project delivery

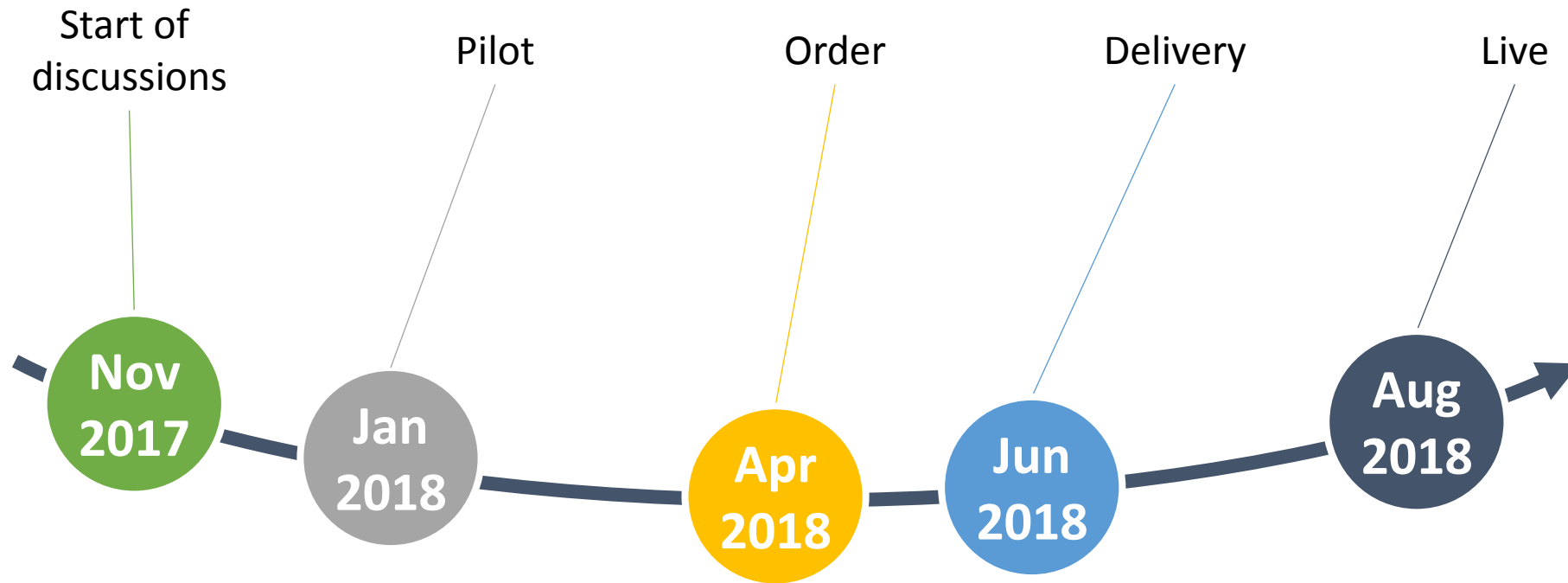
Testing

Support

Experts

troppur

Short time scale – on time delivery





“ The IP facilities solution was delivered on time by Nevia services and LOGIC – despite a very tight schedule dictated by our move to the new premises – and we are pleased with its performance ”

PLAZAMEDIA chairman, Jens Friedrichs

Business objectives and benefits

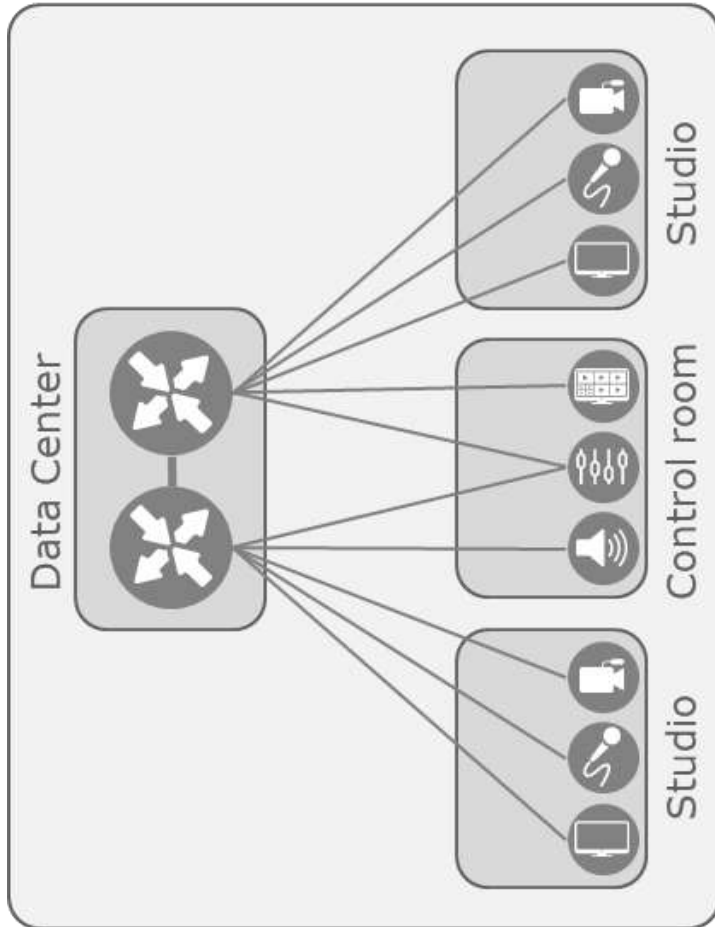
The project

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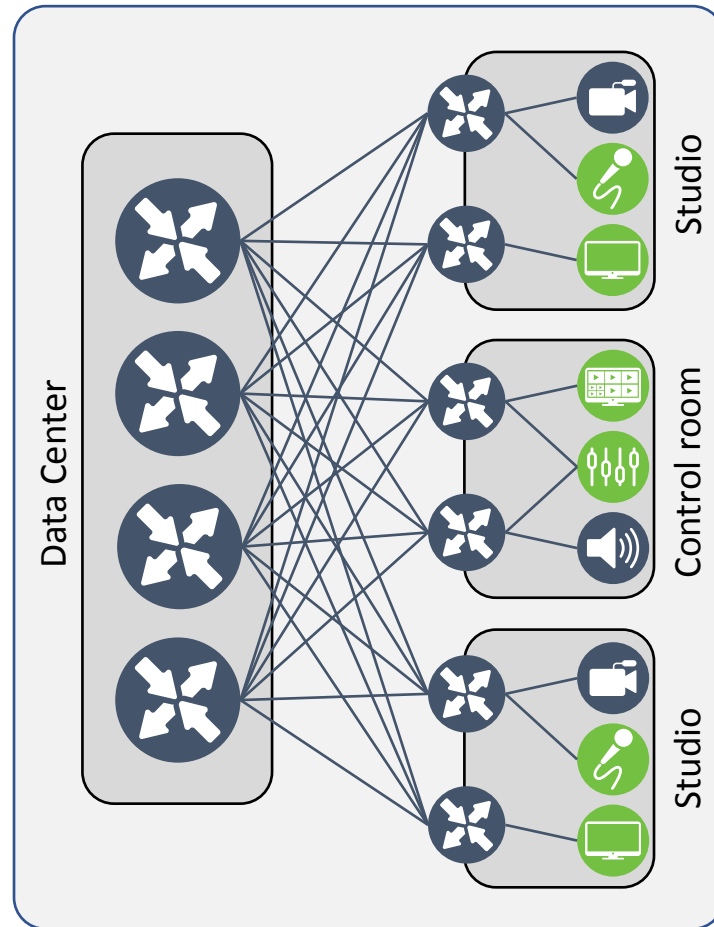
Summary

Chosen network architecture

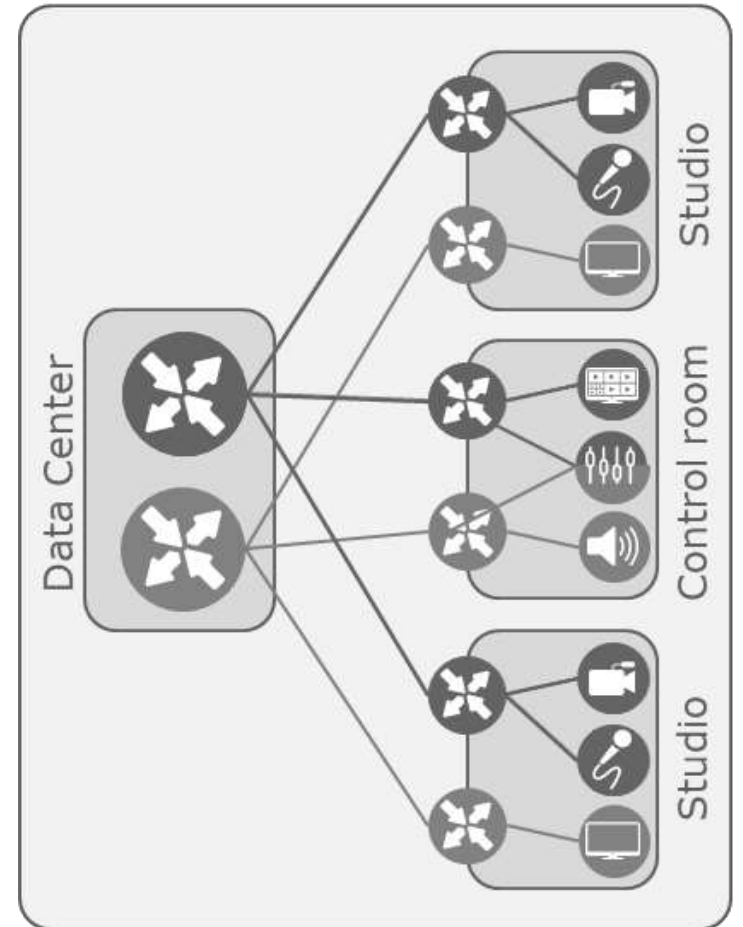
Centralized Star



True Leaf-Spine

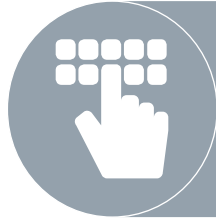


Pseudo Leaf-Spine
(Dual Star)



Control Architecture

Broadcast Control Layer (VSM)



Broadcast control system is not changed now to maintain existing workflows:

- Ember+ control protocol to VideoPath

SDN Control Layer (VideoPath)



SDN control layer manages connectivity between media functions

- Multi-vendor connectivity
- Video/audio essence routing

Media Functions (Virtuoso)



Media Functions pre-provisioned, connected using NAT in the network

- ST2110-30/31 audio, ST2022-6 video streams
- Audio de/embedding

Network Infrastructure (eMerge and Mellanox)



Network infrastructure is controlled via OpenFlow

- Network address translation of ST2110 flows
- PTP distribution

Control



3 x Nevia VideoPath

Full orchestration and SDN control of the IP infrastructure



Lawo VSM

Broadcast control and panels to maintain familiar production control

Products

Media functions



49 x Virtuoso HBR

- SDI-IP adaption
- MADI-IP adaption
- Video processing
 - Frame sync
- Audio processing
 - Embed/de-embed
 - Delay and gain control



Lawo C100

IP Multiviewers and gateways



Lawo Ruby Audio Mixer

IP Audio Monitors



Wohler IAM Audio

IP Audio Monitors

Network



12 x Nevia eMerge

SDN-controlled leaf switches (10/40/100 Gb switches)



4 x Mellanox SN2700

SDN controlled spine switches controlled by VideoPath (32-port 100 Gb switches)

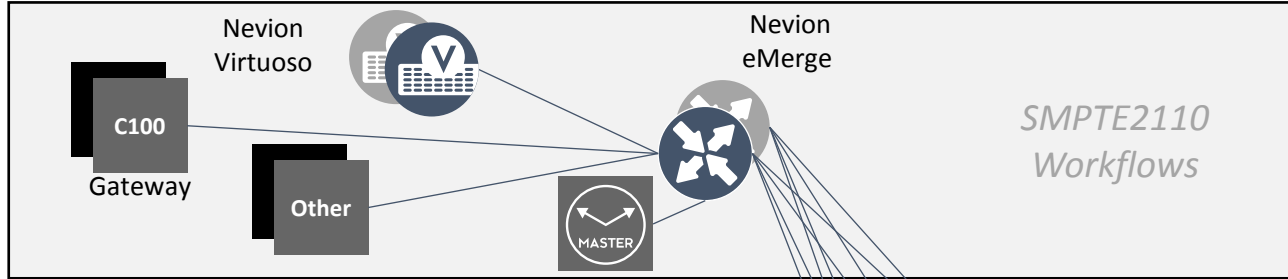


Tektronix SPG8000A and Meinberg M3000

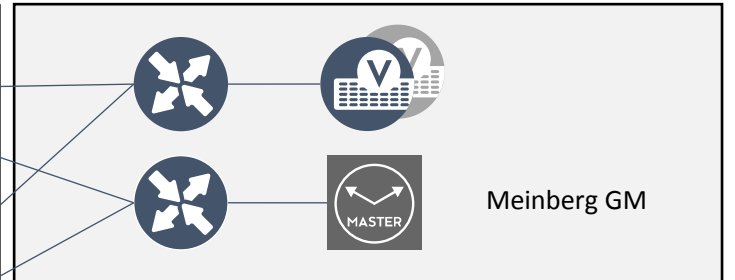
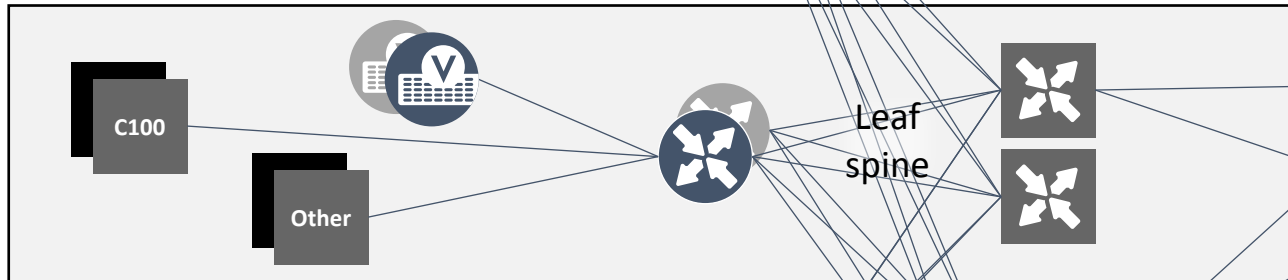
PTP/1588v2/2059-2 grandmasters



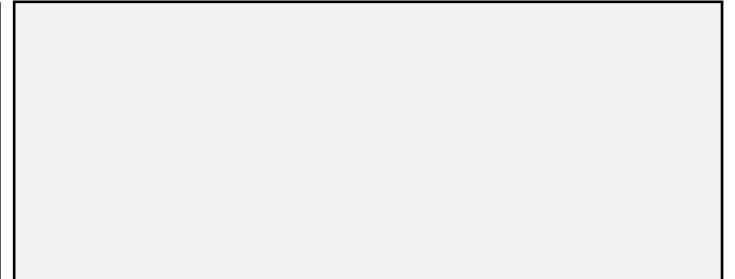
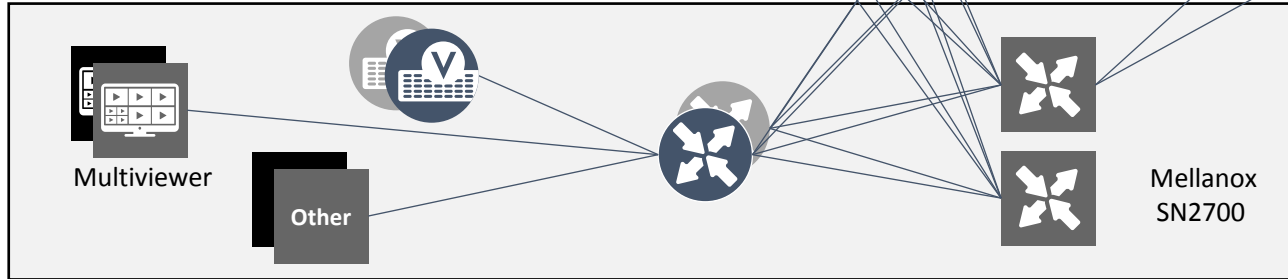
Upper floor



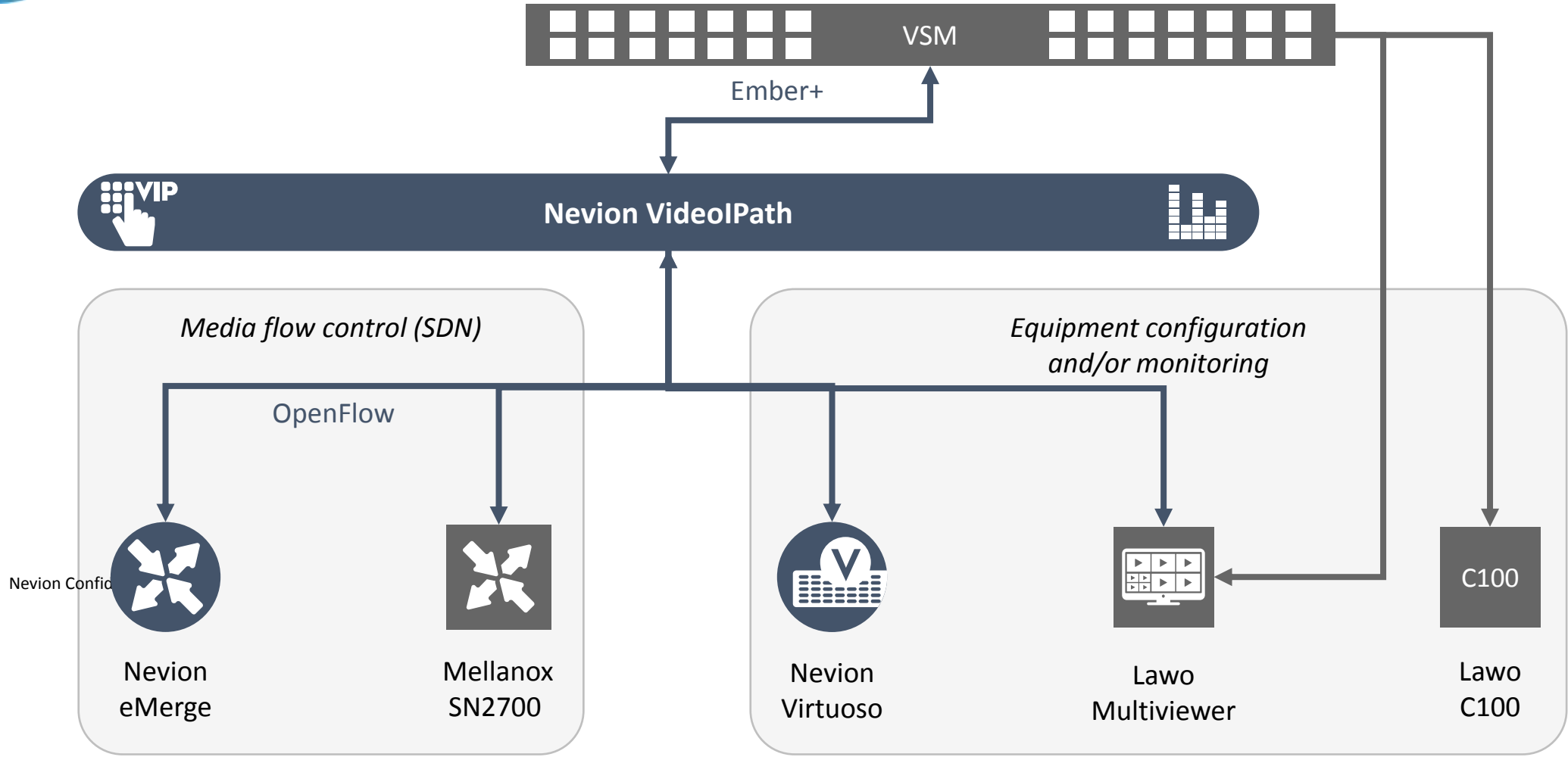
Ground floor



Basement



Interfaces



Uses of new media network

Network operations center (NOC)

Signal reception, distribution, and contribution

Integrated playout & content refinement

Graphics and highlight editing

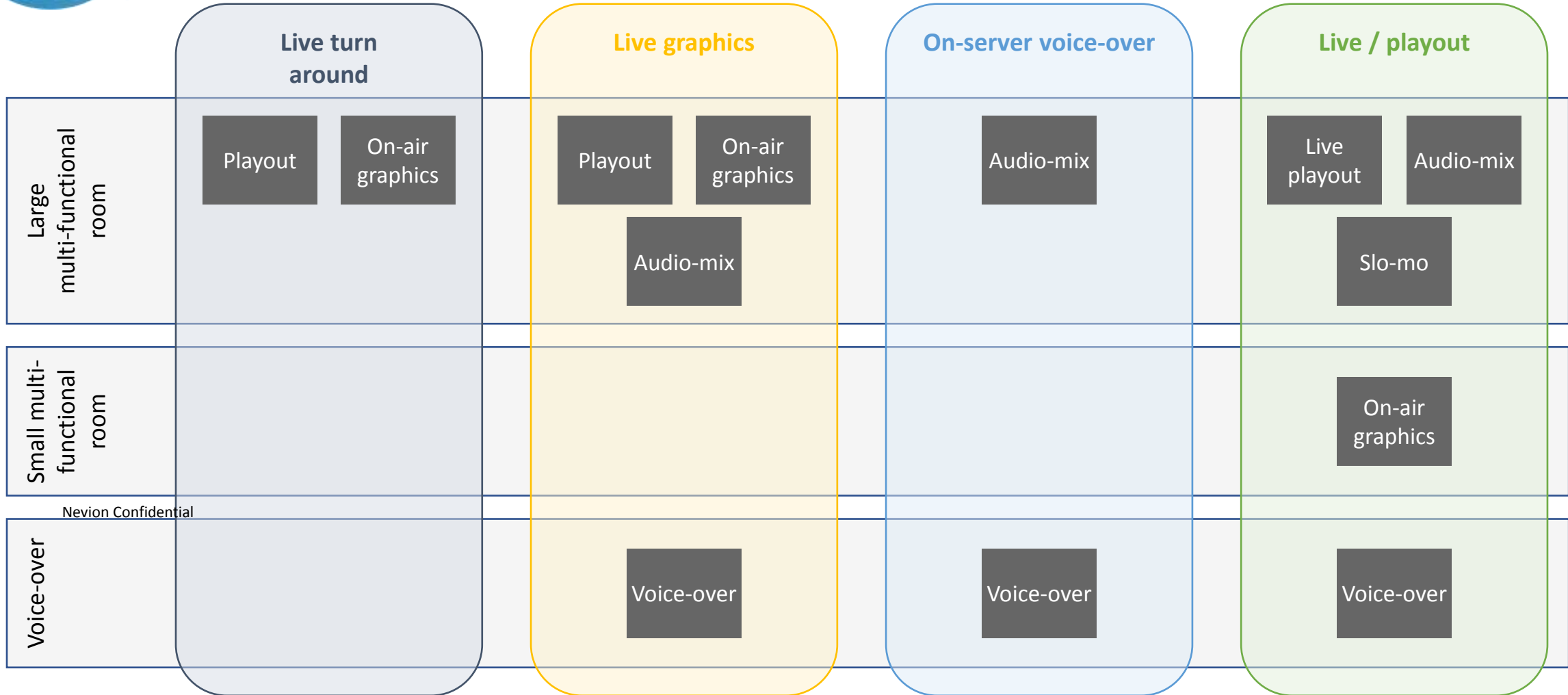


Running live and near-live signals

Integration plans

Post production services, a new streaming platform, and a new MAM system

Example use of Multi-Functional rooms



Nevion Confidential

Master Control Room

Live on-air August, 2018

With remote launch support from Nevia

Multi-Functional Room

Commentary unit



“ We have designed our new broadcast center for maximum flexibility and scalability. This will enable us to realize a significantly higher volume of IP-based projects in the future, in parallel, even at short notice - and at a lower operating cost ”

PLAZAMEDIA chairman, Jens Friedrichs

Business objectives and benefits

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Situation

- Move to new broadcasting center near Munich in 2018
- Wanted a more scalable, flexible and future-proof media network – based on IP, but connecting SDI equipment

Solution

- Spine-leaf media SDN
- Controlled by VideoPath, with VSM as user interface
- SDI-IP adaption by Nevia Virtuoso and Lawo C100
- Video and audio processing by Nevia Virtuoso
- Nevia services for network design, integration, support
- 4 months from PO to going live

Benefits

- More services and productions with the same resources
- Fewer costly operational tasks, e.g. tie-line management
- Scope for cost-effective expansion and scaling



PLAZAMEDIA Master Control Room

Thank You
Do come and see us SU5510
We do a nice cup of tea!

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