M6 Group
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Technology & Applications
End to End IP Solution
• Advanced Orchestration
• Monitoring and Analytic Tools
• Interoperability, Standards Based (SMPTE ST-2110)
• Dedicated Virtualized Solutions
Standards and Challenges

- Enable efficient workflows
- Interoperability
- Troubleshooting/Diagnostics
- CONFIDENCE!

Open Specifications

Advanced Media Workflow Association

Open Specifications to discovery, register, and control IP devices

APIs for control / orchestration systems

IS-04

- Registration and Discovery of 3rd party devices
- Open API
  - V1.2 Approved as Spec

IS-05

- Connection Management
- V1.0 approved as spec
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AGENDA:
- Project Background / Goal
- Solution
- Future / Next Steps?
- Questions
**Project Background / Goal**

- Upgrade of their two sites
  - Main Site was put in production in 2008
    - Modernize its infrastructure
    - Choosing the latest and greatest technology
- Project in two (2) Phases
  - Phase 1: Main Site at 46 Dulud (2018 / 2019)
  - Phase 2: Backup Site at 89 Charles de Gaulle (2019 / 2020)

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Solution

- Modernized Master Control Room (MCR)
- Advanced Playout Infrastructure
- SMPTE 2110 Software-Defined Video Networking (SDVN) solution
- TWO (2) channels currently on (July 2019)
- Provided solution exploits the benefits of SMPTE2110 technology and optimizes various delivery management workflows.
Solution

- The solution is based on a pair of main and redundant Evertz’ EXEs (IP based switching fabrics)
- High capacity switching fabrics that provide non-blocking and low-latency switching of uncompressed SDI video over IP based on SMPTE 2110 encapsulation.

M6 Group Interoperability

- SDI Signals encapsulated to Uncompressed SMPTE2110
- The M6 system had four (4) 3rd party devices
  - Tektronix PRISM
  - HARMONIC Spectrum play out server
  - Ross XPression
  - TSL PAM IP

Harmonic Playout controlled via NMOS (by MAGNUM).
Tektronix PRISM controlled via API (by MAGNUM).
Ross XPression connected with SDI encap/de-encap via IP Gateways.
TSL connected through NAT.
Solution

- M6 requires full control of all SMPTE2110 signals
  - Software Defined Orchestration Based on Evertz MAGNUM
  - Intuitive and user-friendly VUE touch screen interfaces with auto-response to outages
Visibility

- Information such as source paths, link bandwidth/status, and device information is quickly accessed via a web interface and visualized providing additional context and details for the management and operation of the system.

Configurability

- Centralized management and configuration through tailored web interfaces that provide user specific dashboards which contain only the required applications and widgets for that user.
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Future / Next Steps???

1. Channel-by-channel deployments during 2019
2. Two (2) channels currently deployed.
3. Two (2) more channels scheduled for on-air September 24th
4. Rest of remaining channels to be deployed and go on-air throughout 2019.
5. Continuous collaboration between vendors and end-user.
Thank you

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Thank you to our Media Partners

[SVG logos]

IP SHOWCASE THEATRE AT IBC2019: 13–17 SEPT 2019