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IPMX Marketing and Communications Update

February 2025

Samuel Recine

AIMS – Board of Directors

AIMS – Chairman of ProAV Working Group
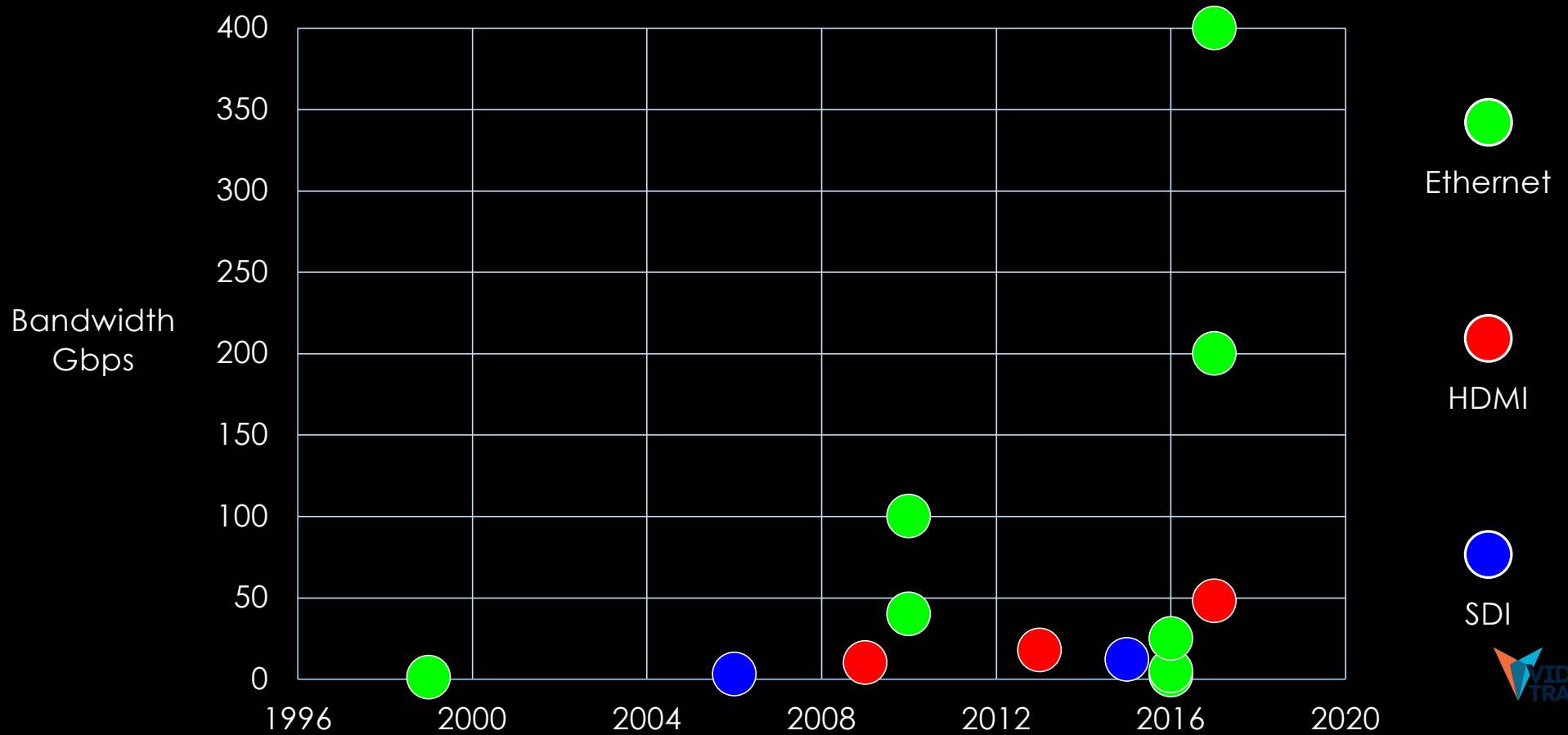
Matrox Video – VP Strategic Partnerships

Agenda

➤ Quick re-cap on market demand for IPMX

➤ AIMS–sponsored IPMX training under construction

➤ Use of IPMX Trademark on products (work-in-progress)
  ➤ AIMS / VSF / AMWA collaboration on IPMX "Profiles"
  ➤ VSF IPMX Activity Group developing test plan for IPMX profiles
  ➤ Minimum requirements for use of IPMX trademark on products
  ➤ IPMX product labelling

➤ NAB 2025 – a major increase in Pro AV coverage
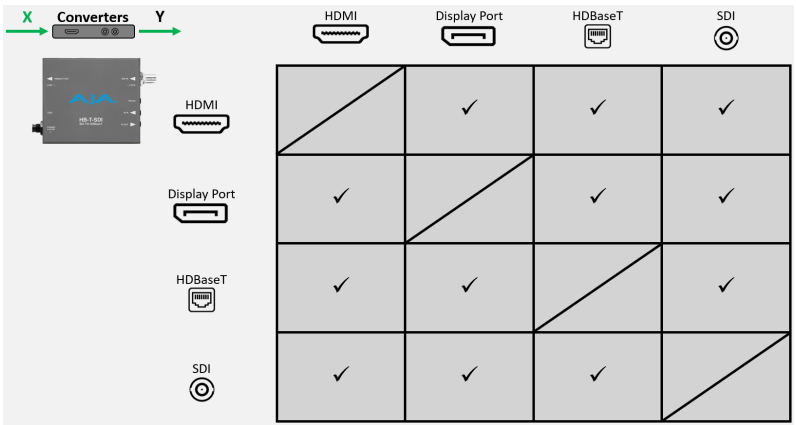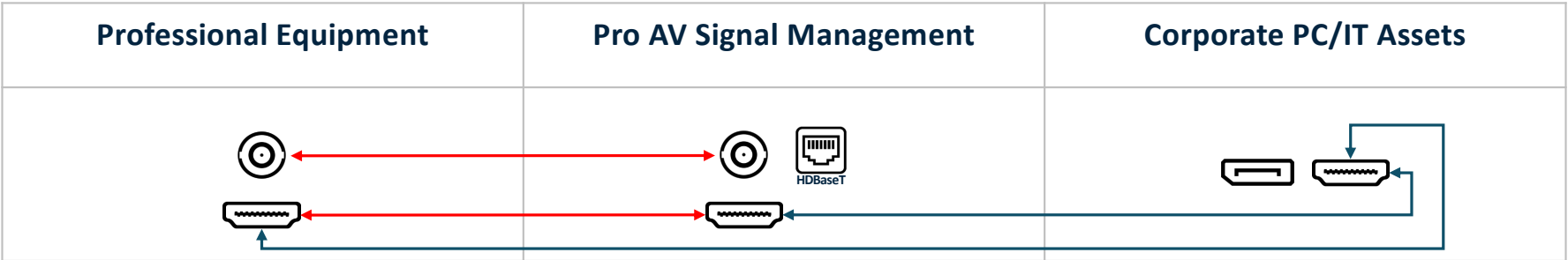
➤ Equipment update

IPMX Demand

Market Demand for IPMX

➤ To some … IPMX is a helpful related set of open specifications to their ST 2110 systems
  ➤ Adding a privacy key exchange mechanism
  ➤ Adding a HDCP key exchange mechanism
  ➤ Etc.

➤ To some … "standardization" is a necessity for Pro AV signal management infrastructure and IPMX is currently the only vehicle

➤ To some … IPMX is a necessary bridge between asset classes

Bandwidth of technologies capable of supporting Pro AV media

Digital Media In Baseband Across Asset Classes

Digital Media In IP

Professional Equipment		Pro AV Signal Management		Corporate PC/IT Assets	
ST 2110	IPMX	Proprietary	ST 2110	NDI (capture)	• USB • Wireless • Standard NIC • Software
NDI		NDI	IPMX	IPMX	

IP-to-IP Converters

Media
- Uncompressed
- Mezzanine codecs
- AVC/HEVC/low bitrate

Sync
- Extreme PTP
- Regular PTP
- No PTP

Protocols
- NMOS (IPMX / ST 2110)
- NDI
- MPEG-TS
- SRT
- RTSP / etc.

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Training

IPMX Training

➤ 2025

➤ Goal: free online

AV Community

➤ Partnerships between organizations (AIMS, VSF, AMWA, …)

➤ Partnerships with trainers, consultants, etc.

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IPMX Trademark

IPMX ™ Goals

➤ Clear description of mandatory features to be called "IPMX"

➤ Clear description of optional capabilities in IPMX

➤ Clear profiles (needed to assure interoperability of media)

➤ Clear labeling requirements

➤ Clear test plan (to cover profiles)

➤ A mechanism to audit or render 'official' which products have met the requirements above

Plug 'n' Play
Baseline Experience

Features & Scalability
Address System Needs

IPMX Profiles

➤ Not static, evolves

➤ Profiles are a baseline but products can, of course, add additional capabilities

➤ A product must support (and pass tests for) at least one IPMX Profile to be called "IPMX"

➤ Target Profiles (so far)
  ➤ Uncompressed video profile
  ➤ JPEG XS video profile
  ➤ HEVC (H.265) video profile
  ➤ AVC (H.264) video profile
  ➤ Audio PCM profile

➤ Additional tests will exist for
  ➤ JPEG-XS option for TCD (also known as FIP) profile for 4:4:4 media
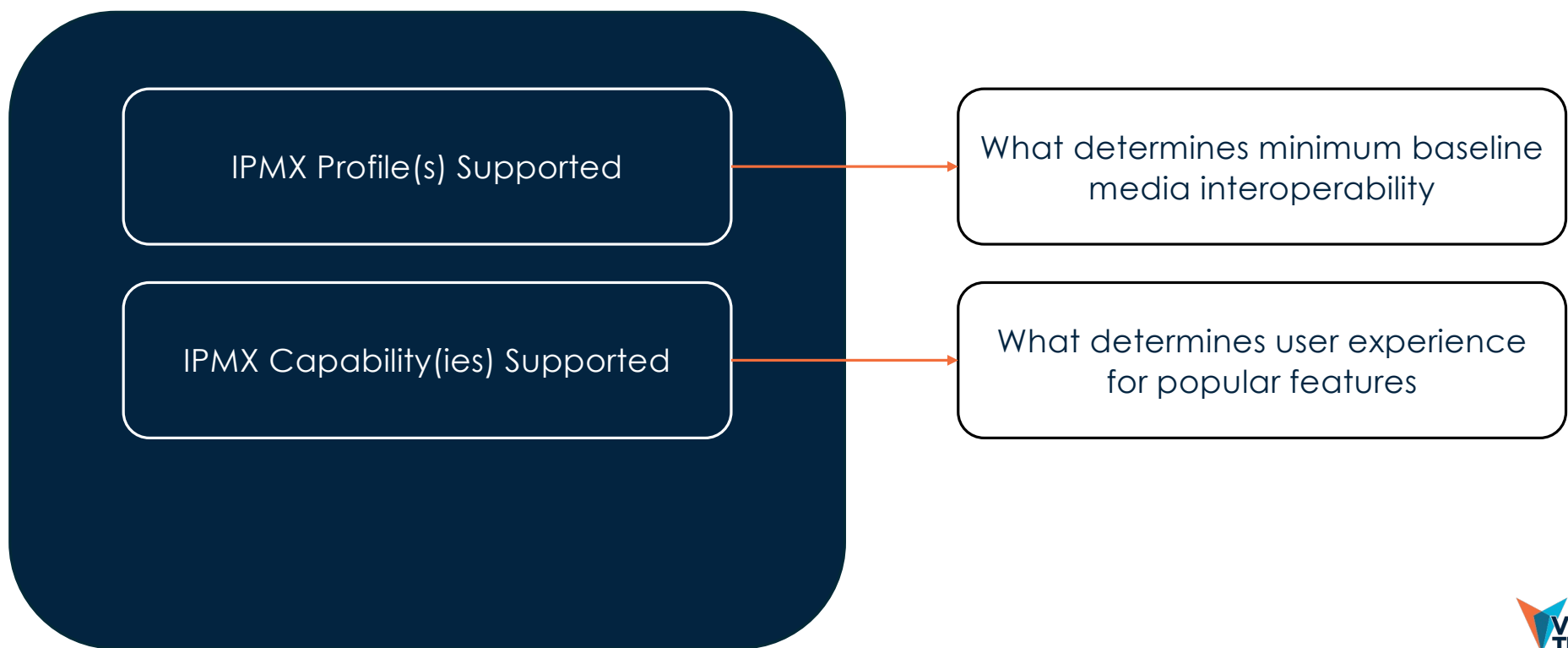 ➤ Main 444 10 profile of HEVC

IPMX Capabilities

➤ Not static, evolves

➤ Capabilities are not mandatory but tests must be passed to use on labeling
  ➤ Example: *IPMX HDCP*

➤ Tests will exist to help with issue of interoperability

➤ Target Capabilities (so far)
  ➤ HDCP (using the IPMX HDCP Key Exchange Protocol)
  ➤ Privacy Encryption (using the IPMX Privacy Exchange Protocol)
  ➤ HDR
  ➤ USB (including RS-232 with USB, UART)
  ➤ CEC

IPMX Interop

➤ Next event in March (in a few weeks)

➤ First provisional test badges

➤ Stretch Goal to have final test plan for "Profiles" and "Capabilities" before IBC 2025

➤ Stretch Goal is to have official IPMX test plan, audit plan, labelling system, use of TM by ISE 2026

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IPMX Labeling (to be announced after test plans are ready)

IPMX Profile(s) Supported → What determines minimum baseline media interoperability

IPMX Capability(ies) Supported → What determines user experience for popular features
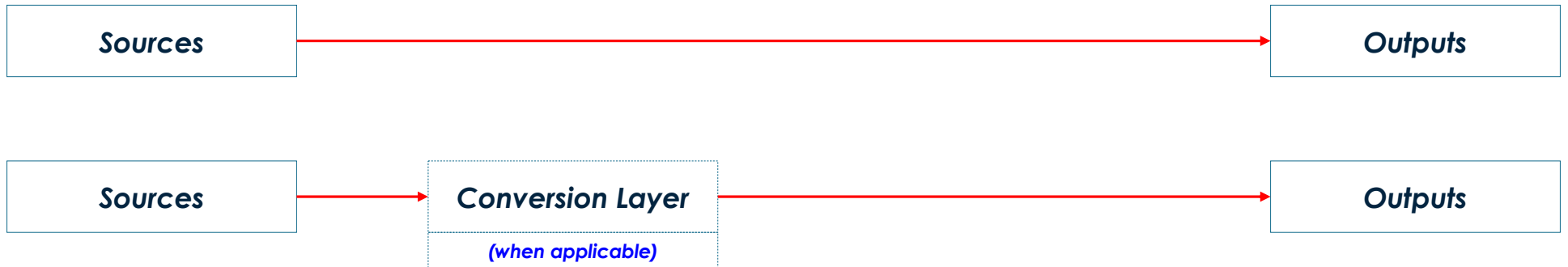
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NAB 2025

NAB 2025

➤ "Significant" focus by the National Association of Broadcasters about Pro AV at next NAB

➤ IP ShowCase 20x20 booth (all interop demos)

➤ Tech Stage (10 presentations)

➤ 1,600 square foot room 3rd floor (West Hall)
  ➤ Additional presentations
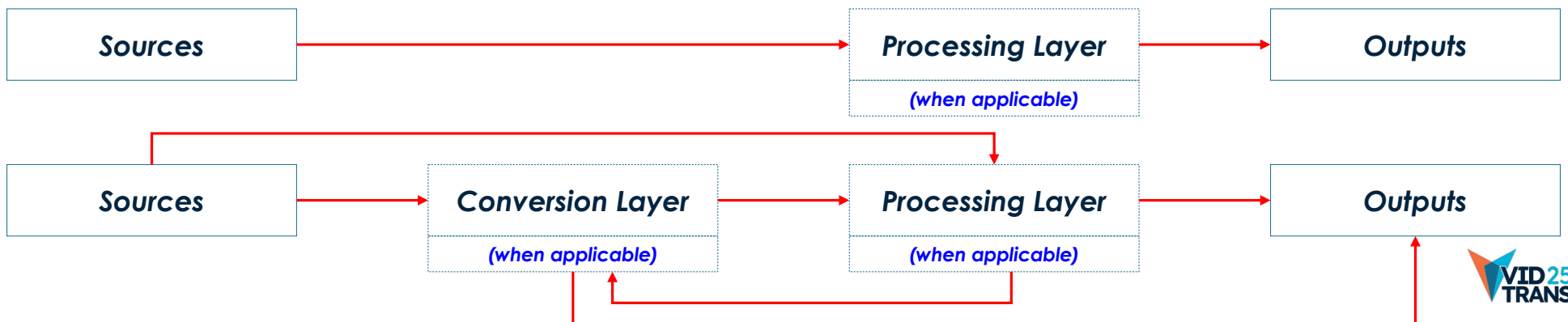 ➤ "Meet the experts" free time with representatives from AIMS, VSF, AMWA, etc.

Equipment Update

Routing Software Dominant

| Sources | ───────────────────────▶ | Outputs |

| Sources | ──▶ | Conversion Layer
(when applicable) | ───────────────▶ | Outputs |

Processing Software Dominant

| Sources | ──────────────▶ | Processing Layer
(when applicable) | ──▶ | Outputs |

| Sources | ──▶ | Conversion Layer
(when applicable) | ──▶ | Processing Layer
(when applicable) | ──▶ | Outputs |

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IPMX eco-system level of enablement (2025)

Low-level

- Chip (ASIC)
- ✓ IP Licensing
- ✓ OEM sub-assemblies

Legend:
- Announced or shortly Expected
- Interest / opportunity

Sources

- ✓ Cameras
- ✓ Audio sources (mics)
- ✓ Non-PC based
- ✓ PC-based
  - ✓ NICs & I/O cards
  - ✓ Software
  - ✓ Virtual capture & plug-ins

Conversion Layer

- ✓ Converters
  - ✓ Uncompressed/ Mezzanine
  - ✓ High compression
- ✓ Media/Protocol IP Gateways
  - ✓ Simple
  - ✓ Bulk (cost-per-stream)

Processing Layer

- ✓ PC-based
  - ✓ NICs & I/O cards
  - ✓ Software processing
  - ✓ Virtual capture & plug-ins
- ✓ Non PC-based
  - ✓ Video wall processors
  - ✓ Live prod. equipment
  - ✓ Mixers
  - ✓ Presentation switchers
  - ✓ Etc.
- Cloud, SaaS, etc.

Outputs

- ✓ Displays (mainstream)
- ✓ Audio receivers (speakers)
- ✓ dvLED Tile Processors
- ✓ Intel Smart Display Modules
- ✓ Displays (Professional)
- Specialized Storage & Recording

Thank you

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