Technologies

Ketil.morstol@soundware.no

Dante
- Cons
  - No user managment
    - (3.1 pin code lock)
  - No admin rights
  - Changing unit naming cause route to break
  - Not open for 3'rd party control systems (apart from a few)
  - No GPIO/signalling apart from vendor spesific
  - Compex in large setups. Uni vs m cast.
  - Only one vendor of non-TDM based router
  - Many conciderations to be done in planning. Even more when in use.
  - AES67 compatible, not compliant
  - Only AES 67 mCast
  - Audio driver can NOT be installed on virtual computers
- Pros
  - Many products available🌐
  - Network discovery
  - Dante over WiFi not possible
  - Good in isloated islands.
  - Hotswap of defective unit
- Others
  - Uses PTP V1 d 95
  - SAP discovery in AES67 mCast
  - Closed protocol
- Best use
  - Rec studio
  - Prod studio
  - Isolated islands
  - AV
  - Fixed installl
  - Small/owned install

Livewire+
- Cons
  - No MADI units, SDI.
  - Only 16-24/48 kHz
  - Not much available HW
- Pros
  - Ravenna compatible
  - Fully compliant to AES67
  - Native multicast
  - Password protected units
    - Not possible to alter settings by accident
  - Control system
    - Auto doc
    - 3rd party
    - Cause/action
    - Panel builder
  - SNMP
    - Configurable
  - GPIO/PAD
  - Work in isolated as well as corp installs
  - Established since 2004
  - Node can be router, mixer or converter
  - Hotswap
    - Redundant NiC
    - Dual PSU
  - Discovery
  - Extensive settings
  - Open protocols
  - Internal clocking
- Other
- Best use
  - Broadcast

Ravenna
- Cons
  - Not much available HW
  - Expensive I/O's . $ pr. ch is low though.
  - Needs 3'rd party control system
  - No AES 67 unicast using SIP
    - Unicast has been seen on some units resently.
- Pros
  - Livewire compatible
  - Many samplerates and bit depths
  - Native multicast
  - Password protected units
  - Router can be mixer or converter
  - Extensive settings
  - Open protocols
  - Internal clocking
  - Discovery
  - Low delay
- Other
  - Dependent on PTP
  - No GPIO
- Best use
  - Hi-res recording/prod
  - Ingest

AES67
- Pros
  - A few defined samplerates and bit-depths
  - Defined connection methods
    - URI & SDP
  - Multicast & Unicast
  - Defined packet size, etc
- Cons
  - Open for interpretation
  - Lots of "false" advertising in market
    - Compability vs compliance
- Other
  - SIP
  - No discovery yet - AES-70
- Best use
  - Exchange/interoperability

N/ACIP🌐
- Just as AES67, but for codec's
  - Compatible to AES67 to some extent. (4ms)
  - SIP
- Codecs
  - Wide selection of bitrates/depths
- WAN/Internet/3G/4G
  - STUN, NAT
- Supports GPIO
- Mature standard