Recommended Hardware Environment

Provides minimum hardware requirements for either a 4 channel or 8 channel server. Based on Dell or HP systems. Be sure to also consider important options such as the bezel, rails, cables, TrustedPlatform, Heat sink, Fan, and so on.

Dell

Dell R6525 with one 7313P CPU, Chassis with up to 8x 2.5" Hot Plug Hard Drives (1CPU, No XGMI). Provisioned:

- No additional processor (a non standard option)
- Windows, Windows Server, Red Hat/CentOS or Ubuntu OS
- PERC H355 Controller Front
- Performance BIOS Settings
- Dual, Hot-plug Redundant Power Supply (1+1), 800W
- AJA Corvid 44 4x 3G-SDI I/O board (minimum)
  - or
- AJA Corvid 88 8x 3G-SDI I/O board (high throughput)
- Riser Config 1, 1x 16 FH PCIe slot (required for Corvid card)
- PowerEdge R6525 Motherboard, with 2x 1Gb Onboard LOM
- iDRAC9, Enterprise 15G
- NVIDIA® ConnectX-6 Lx Dual Port 10/25GbE SFP28, OCP NIC 3.0
- BOSS-S2 controller card + with 2 M.2 240GB (RAID 1)
- BOSS S2 cables and Bracket for R6525
- 8x 8GB RDIMM, 3200MT/s, Single Rank
- 2x (could be more) 1.92TB SSD SATA Read Intensive 6Gbps 512 2.5in Hot plug AG Drive, 1 DWPD

Dell R6615 with one 9124 CPU, Chassis with up to 10 SAS4/SATA 2.5” Drives including 4 Universal Slots, Front PERC 11. Provisioned:

- AMD EPYC 9124 3.0GHz, 16C/32T, 64M Cache
- PERC H355 Controller Front
- Performance BIOS Settings
- Dual, Hot-plug, Power Supply Redundant (1+1), 800W
- AJA Corvid 44 4x 3G-SDI I/O board (minimum)
  - or
- AJA Corvid 88 8x 3G-SDI I/O board (high throughput)
- Riser Config 3, 2 x16 FH (Gen5) (required for Corvid card)
- PowerEdge R6615 Motherboard V2, MX
- Broadcom 5720 Dual Port 1GbE Optional LOM
- iDRAC9, Enterprise 16G
- (Recommended) Broadcom 57412 Dual Port 10GbE SFP+, OCP NIC 3.0
- NVIDIA® ConnectX-6 Lx Dual Port 10/25GbE SFP28, OCP NIC 3.0
- BOSS-N1 controller card + with 2 M.2 480GB (RAID 1)
- BOSS Cables, Bracket for R6615
- 12x 16GB RDIMM, 4800MT/s, Single Rank
- 2x 1.92TB (could be more) SSD SATA Read Intensive 6Gbps 512 2.5in Hot plug AG Drive, 1 DWPD
- Windows, Windows Server, Red Hat/CentOS or Ubuntu OS

HP

HPE ProLiant DL325 Gen10 Plus v2 with one 7313P CPU, Chassis with up to 8x 2.5" Hot Plug Hard Drives. Provisioned:

AJA Corvid 44 4x 3G-SDI I/O board (minimum)
or
AJA Corvid 88 8x 3G-SDI I/O board (high throughput)
AMD EPYC 7313P 3.0GHz, 16C/32T, 128M Cache
MR416i-a RAID Controller
Dual, Hot-plug, Power Supply Redundant (1+1), 500W 80PLUS Platinium
Riser Config 2x 16 FH PCIe slots (default in this model)
HPE iLO Advanced License
NVIDIA® ConnectX-6 Lx Dual Port 10/25GbE SFP28, OCP NIC 3.0
2x 240GB SSD SATA for OS boot (in Raid1)
8x 16GB RDIMM, 3200MT/s, Single Rank
2x 1.92TB SSD SATA (could be more)
Windows, Windows Server, Red Hat/CentOS or Ubuntu OS

General Considerations

CPU

4 channel: 2x AMD EPYC R6525/7313/7313P/9124 CPU (16 cores)
8 channel: 2x AMD EPYC R6525/7313/7313P/9124 CPU (32 cores)

RAM

8x 8GB, or 8x 16GB DDR4 3200 RAM (or more for high throughput workflows)
[8x DDR4 modules are recommended for EPYC 7XX3 series and 12x DDR5 modules for the EPYC 9XX4 series]
[4x HD needs a minimum of 64GB RAM, 8x HD needs at least 128GB]
[UHD requires at least 32GB per channel]

Chart: RAM recommendations

System	Workflow	RAM
Dell R6525 with 2x EPYC 7xx3 CPUs (or similar systems like HPE DL325 G10+ v2, Dell R7515)	4 channels of HD	8x 16GB
Dell R6526/R7515 with 2x EPYC 7xx3 CPUs	8 channels of HD	16x 16GB
Dell R6615 with 2x EPYC 9xx4 CPUs	Common workflows	12x 32GB

Boot Drive

Manufacturer-specified boot card or device which uses 2xM2 (such as BOSS from Dell) is recommended

When using SATA drives for boot, an HBA storage controller is required (depends on the system manufacturer, but should allow for RAID1 for boot device and direct OS disk access for the media storage)
Alternatively, 2x 240GB or 2x480GB SSD SATA drives (in RAID1) can be used for OS boot.

Media Storage

At least 2x 2T SSD SATA drives for media storage which will be used as ZFS pool for media. Depending on the system and workflow, 8 or 10 drives would be recommended to maximize storage capacity.

Video Card

The system should have at least 1x PCIe Gen4 slot for SDI IO card. AJA Corvid boards are available in full height or half height models.

Recommended:
AJA Corvid 44 4x 3G-SDI I/O board (minimum)
  or
AJA Corvid 88 8x 3G-SDI I/O board (high throughput)