Information

The best Ethernet SAN solution for outside Broadcast

microDDP10GbE

Is your company involved in using OB Vans, SNG cars and or ENG teams or other ways to do outside registrations? Registrations such as sports events, news, festivals, business presentations, film shoots? There are more and more outside registrations with more and more cameras with more and more content to be handled and judged before it can be released. Also often immediate checking and editing of material is required.

- 4 or 8 SSDs of 1, 2, 4 or 8 TB
- RAID5
- 6x 1GbE + 2x 10GbE / SFP+
- 1U / 11lbs / 5kg
- 11" / 29 cm
- 2200 MB/s / 80W

Edit while ingesting
The ability to ingest and edit material on location with the smallest, silent and fastest setup against the best rental price in the shortest time with the highest picture quality is a key decision factor. High picture quality requires high bandwidth. SAN systems deliver the highest bandwidth. These requirements call for an easy, fast and lightweight Ethernet SAN shared storage solution.
Recently Ardis Technologies introduced their new microDDP series of Ethernet SAN shared storage systems.
The microDDP10GbE can have 8, 16, 32 or 64 TB RAID5 protected SSD (solid state disk) storage.

microDDP10GbE has 6x 1GbE + 2x 10GbE / RJ45 and 2x 10GbE/SFP+ ports and a bandwidth up to 2200 MByte/s. DDPs run the full DDP software package.

SSDs are still perceived to be expensive with limited capacity. Not so long ago however 1TB and 2TB SSD came on the market with prices much better then the prices of fast rotating (10K) spinning disks. SSDs are small, hardly produce heat but most importantly there is no seek time.

So what does this mean for the amount of data, which can be stored and how many users are able to work simultaneously?
7 TB effective capacity is enough to hold 70 hours of ProRes HQ or DNxHD220 video material or approximately 300 hours of DNxHD45 or more than 100 hours of Pro Tools 100 track sessions.
The bandwidth of the microDDP10GbE is enough to stream 50 streams of ProResHQ/DNxHD220 or some 200 streams of lower video formats such as DNxHD45 or 40 streams of Red R3D material. The ports can be connected to laptops, desktops and workstations without the necessity of a switch, which is very easy to handle in the field.

The Stream Count and Capacity in Hours for various video, film and audio formats
The right picture shows the microDDP10GbE.
Ports can be connected to a simple switch to extend the range of clients connected.
The bandwidth of the microDDP10GbE is limited by the summed bandwidth of the Ethernet ports: 2200 MByte/s. This bandwidth is not influenced by video, audio or film format, nor influenced by whether it is streaming, push/pull or IOs.
If your format is not listed here simply divide 2200 by your format to get the number of streams, which can be run simultaneously.

Video, Film or Audio Format	Stream Count microDDP 10GbE	Capacity in hours with SSD8, 2TB pack
4K, UHD, 3840x2160, 10 bit, 25 fr/s, 840 MB/s	2	4
2K, uncompressed, 10 bit, 2048x1556, 24 fr/s, 320 MB/s	4	12
4K, R3D, 40 MB/s	44	90
4K, Sony XAVC422, 10 bit, 30 MB/s	60	110
DNxHD220, 28 MB/s	64	110
ProRes HQ, 1080i60, 720p60, 1080p30, 28 MB/s	64	120
DNxHD185, 24 MB/s	72	140
ProRes HQ, 1080i50, 720p50, 1080p25, 24 MB/s	72	140
SD, uncompressed, 8 bit, 21 MB/s	90	180
DNxHD145, 18 MB/s	99	200
HDCAM, 20 MB/s	90	200
ProRes, 1080i60, 720p60, 1080p30, 18 MB/s	99	200
ProRes LT, 1080i60, 720p60, 1080p30, 13 MB/s	130	280
ProRes LT, 1080i50, 720p50, 1080p25, 11 MB/s	150	330
AVC-intra100, DVCProHD100, DV100, 12 MB/s	150	330
AVC-intra50, IMX50, AVCHD, DVCPro50, 6 MB/s	270	610
DV25, XDCAM HD, XDCAM EX, IMX30, MPEG30, 4 MB/s	400	920
MPEG2, OffLineRT, 1 MB/s	1700	3600
Audio, 24 bit, 48 KHz, 100 tracks, 15 MB/s	110	230
Audio, 24 bit, 96 KHz, 100 tracks, 30 MB/s	60	100

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