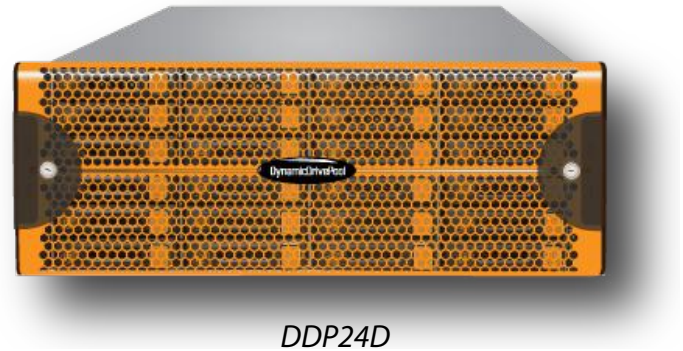
DDP Headquarters

July 7, 2016

Hybrid DDPs with SSD caching and Load Balancing

The broadcast industry changes rapidly.
Ethernet is becoming the dominant network technology in all sorts of ways including cloud usage. Bandwidth requirements increase due to more collaboration and 4K/8K implementations. Also, there is less and less time and knowledge to manage complex infrastructures and workflows. These changes have a large impact on our storage industry.
However, the biggest impact on our storage industry comes from flash memory, e.g. SSDs. Why? Well, 3,5 inch hard disks increase in capacity e.g. 15 TB, but 15 TB 2,5 inch SSD are already announced as well. SSDs are small, low power, lightweight, they have no rotating parts and are highly reliable and very fast. Most shared storage users will already use SSDs in some way or another and experienced their advantages.
I am also sure that between now and some time from now you will decide that you want to start using SSDs also in your shared storage environment. To make such a transition you need to be fully aware of how this market will look like within, for example, 8 years from now. It sounds like a long time, but time flies! I predict that 24/7 hard disks will be replaced by SSDs as primary storage. So how can the transition be smooth?



DDP24D

DDP48D

The magic words are hybrid DDPs with SSD caching and adding DDP16EX and DDP60EXR on the fly with automated data redistribution (V4 software). This can be done without any administrative changes in the web interface.

And there'll be more magic to come with the V5 software with Here, There and Elsewhere technology. With this technology even any DDP can be added on the fly – again, done with no administrative changes. If necessary, a DDP can be removed, used standalone elsewhere, and after finishing the job added again with immediate availability of the media. This all results in linear scaling both in capacity and bandwidth, plus mirrored ingest, copying and recording capabilities.

Improvements at the back-end without complex changes for the front-end

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For DDP users the transition path is straightforward, especially when they have one DDP volume per Drive Group. Once they made the transition to V4 software, DDP users can expand with SSD or HD packs for caching and load balancing. Over the years more SSD packs will be installed. And more and more ingesting will be done directly on SSDs. Then, eventually, the DDP base system itself is up for renewal because it is getting too old. With V5 software this also is smooth process. Just integrate the newly purchased DDP into the existing setup, connect to the network and power up.
Taking the original one out of order can be decided any time. There is no urgency anymore. This DDP may even get a new life for mirroring the data if it is not too old. This scenario takes place without having to make changes to your folder volume structure (one name space), without having to make changes to users, groups and access rights and without having to make changes to application settings running on top of this. The new DDP can be in another machine room, as long as it is on the same subnet. Over time, however, more and more newly purchased DDP shall be microDDP10GbEs with sufficient capacity. Because the microDDP10GbE does not require a machine room, each DDP can really be Here, There or Elsewhere.

No changes to your folder volume structure or changing users, groups or access rights

microDDP10GbE

I can imagine that for non-DDP shared storage users the picture I just painted is frustrating – for others it may and sounds like a dream come true or maybe even hard to believe. Especially when you consider that the transition of both HD to SSD, and the transition of old DDP to new DDP is smooth. So, non-DDP users, who are cost and efficiency conscious, and are thinking about renewing their old storage, should definitely investigate DDP.

So, how do I see the future of the shared storage market? There is no need to ask that question, because I believe that future is here with the microDDP10GbE. Of course, it may further miniaturize and certainly the capacity and bandwidth will further increase, but the basic properties such as: small, lightweight, low power, very quiet, will remain. If you now look in a machine room and see a storage server it may consist of hundreds of spindles taking up large 19inch racks and a heavy air conditioning unit for cooling. Just to get an idea where we are heading, ask us how we would offer a system now with this future in mind? Asking this question may help broadcast professionals decide on DDP from Ardis Technologies.

Sincerely yours,

Dr. Ir. Jan de Wit, CEO

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