

Dell EMC PowerStore – Ask-the-Experts!

FAQ Document

1, "Synchronous Replication. Will it be free of charge? Will it be over IP, FC or both? SC has a live volume feature, will this or a virtual VPLEX option be on the roadmap?",

>> Sync rep is on the roadmap and will be a software upgrade. At the moment we have a special priced package with VPLEX for sync

2, "Are there any recommendations for how full the array should be sized. For example, if you were to size for a 100TB requirement, should I add additional space, so the system does not run at 100% capacity. This is especially important where customers are not expecting capacity growth over time."

>> Rely on the PowerStore sizer

3, How compression and deduplication works? Could you give some details? What type of data are compare? Where is engine to compres data?

>> We will cover shortly (below)

4, "Guys, each time i show this slide, Partners ask about the SC series. Competition are leading with that, so how to overcome this?",

>> live answered (SC is not going away in the foreseeable future)

5, How about the plan to add an expansion shelf without having the head enclosure is full with NVMe SSDs? The SMB customers in Switzerland would probably prefer having "normal" SSDs before having to fill an entire enclosure with expensive NVMe SSDs. Any chance this restriction will fall away?

>> No plans at this point.

6, When will be NVMeoF Frontend available?

>> NVMeoF will be via 32Gb FC, it is on the roadmap without an exact date yet."

7, Must all the box be the same model in case of scale-out?

>> No you can have different models in scale out., "No, you can have different T models in scale out deployment"

8, Will VPLEX Frame License cover scale-up and scale-out capacity?

>> Scale up will be covered as its frame based. We will come back to you regarding scale-out.

9, Why transition SC customers? is SC series going to End Of Sale?

>> live answered (SC is not going away in the foreseeable future, but customers with requirements for PowerStore features and technologies might be transitioned to)

10, "when you say transition SC, will this fade out eventually?"

>> live answered (SC is not going away in the foreseeable future, but customers with requirements for PowerStore features and technologies might be transitioned to)

11,What about migration from unity to PowerStore or from third party to Powerstore?

>> There are several methods for migration, PPME, Storage VMotion, SAN Copy etc"

12,But SC is not in your strategic roadmaps?

>> live answered (no tech refresh on the road map)

13,"Regarding sync rep with VPLEX, is there the same issue like with Unity/VNX and VPLEX, where the restore of snapshots was ""not really nice""?

>> Will Cover shortly.

14,"Killing XtremIO, even due to its platform fragility was a mistake, to make room for PowerScale. PowerScale cluster feature is far beyond what a storage cluster would have to look like, taking into account all the interconnect options available today."

>> Statement, no question. XtremIO still is available

15, should the X be the same price as the T model?

>> yes plus the hypervisor license

16,But SC is not in your strategic roadmap..

>> live answered (no tech refresh on the road map)

17,"Yeah, but the previous slide is perceived as a Roadmap. so competition is saying we are killing Sc series, so for customers it is not wise to purchase an SC because Dell Tech is going to remove it in the catalogue in a couple of years.",

>> live answered

19,"UK market: low and medium - much of it is sub £100K, and still much hybrid. ME fits well @ low, Unity XT and SC in the middle"

20, transition SC customer to lead product? is SC end of life?

>> live answered

22,"Does the X series require an external vCenter to operate, or can it use an embedded vC akin to VxRail?

>> X models uses VMware ESX hypervisor and fully integrates with VMware environment with an external vCenter v6.7U2 minimum

23, Can we mix T model and X models in the same cluster?

>>No not at this time

24,"How the active/active work with PP and MPIO, I will see all the path as active/optimal or only half?

>> live answered (VPLEX only needs local HA connectivity, supported multipathing SW please refer to the ESSM)

25, Currently power store supports ALUA. When NVMeOF comes will both power store nodes be able to access to same LUN or volume concurrently?

>> Will come to it shortly (That's the plan)

26, Do you size this array using 4:1 compression? If I need 40TB usable capacity will I size PowerStore as 10TB?

>> Sizing is done based on a 4:1 DRR (default, can be changed I PowerStore Sizer) and usable capacity using PowerStore Sizer

27,"For 1 array (dual controller in a box), do we need switch for clustering?

>> You'll require a switch (two for HA mandatory for production environments) for one and for more than one appliance.

28,"we guarantee 4:1, but can we say the same for a customer with a lot of Videos files?

>> Mileage will always vary. obviously large video files won't compress. 4:1 is based on the most common mix of workloads. If ever in doubt run LiveOptics on the data set.

29, so to keep things simple: Metro is done by VPLEX boxes and PowerStore arrays?

>> Correct

30, during previous presentation 2 management switches were requested => That's only needed if more than 1 appliance? you confirm?

>> 2 switches is for redundancy of the data network, best practice and mandatory for production (for the T-series out-of-band 1GbE management network, only one switch is accepted)

31, Will you share this presentation with participants?

>> Yes, it will be available.

32, Any info on how sync rep / transparent failover will be implemented? more VPLEX style or more SC style?

>> This is roadmap and we don't have any details yet. For now, we have VPLEX for sync/metro.

33, but can it be connected to already working VPLEX to achieve Metro functionality?

>> Yes, for sure

34,"can you cluster two or more X appliances, one with NVMe drives in DPE, other with SAS SSD? So, a mixed config?

>> Yes, you can mix models and configs,

>> You can have a mixed config of drives however X series is a single appliance at this time. It will cluster in the future.

35, how disruptive is the LUN migration in a clustered appliance setup? There must be some performance penalty.

>> live answered (full online, no disruption, only host paths must be checked before for availability – this is warning the admin has to confirm in the PowerStore UI)

>> Performance should not be impacted if planned carefully and migrations are scheduled for convenient times, therefore we have ML, watching growth rates and trends, warning ahead.

36, I knew clustering weren't supported at this time for X models...

37, Is tiering cold data to cloud target on roadmap? Any idea of timescales?

>> live answered (no tiering, but volumes can be migrated online to another appliance in the T-series cluster with mode and more cost-effective storage (e.g. SAS shelves)

38, My question re vCenter - is an external vCenter mandatory? Or can it run on the series X - and do away with any external server hardware?

>> it does require an existing vCenter v6.7 to deploy into

39, How volume move between Appliances? What vLan and how volume performance is affected?

>> live answered (using the data networks between the appliances)

>> Performance should not be impacted if planned carefully and migrations are scheduled for convenient times, therefore we have ML, watching growth rates and trends, warning ahead.

40, "Hello, who is our target competitor in the storage products market? Which brand and which model?

>> If you have access to KLUE you can find model for model comparison there. If you don't have access reach out to your local partner SE

41, I need training on PowerStore where do I find the study materials?

>> Training is available via partner academy

42, Training: <https://education.dell EMC.com/>

43, "About AppsOn, competition is saying this is a 2 nodes VxRail, how do we respond to that?

>> It is a completely different architecture, features and use cases. Main difference is that HCI is compute focused, whereas PowerStore is storage and capacity focused and can act as external storage sharing capacity with other servers over FC

44, AppsON requires 2 CPU EntPlus licenses?

>> live answered (Yes)

45, not AppsOn but X model?

>> Apps On is on the X model

46, Is there a roadmap item to have a software defined version of PowerStore to run in the cloud?

>> live answered (Yes)

47, Could we use all ports in mezz cards? Default two are active as a uplink to switch.

>> Will answer shortly (On X-Model port 0 and 1 are vSwitch uplinks, ports 2 and 3 can be optionally used as uplinks as well and this would be even suggested)

48, "Hello, who is our target competitor in the storage products market? Which brand and which model? such as, Huawei Dorado v6, or IDM v9000 series? who is our competitor?

>> Again, look on KLUE or please reach out to your local partner SE. There are many competitors PowerStore competes with.

49, AppSync is for create consistent copy?

>> Correct.

50, "my question is about the fact that, as the X model is hypervisor embedded, competition are saying that it is a 2 nodes VxRail. if it can be clustered, why buy a VxRail?

>> Model X can also share storage with other servers/nodes so is more flexible than VxRail in this sense. PowerStore is not a 2 node VxRail. VxRail is more oriented into CPU oriented workloads and PowerStore Apps ON for data intensive workloads.

51, 40/100GbE in plans?

>> in the roadmap

52, Sorry did you just mentioned that you can run your applications or VMs directly on PowerStore without the need of Servers providing Compute resources?

>> Correct.

53, "Max storage drives for 8 clustered SPs, is 768 drives, right?

>> 384 (4 appliances with 96 drives each including expansion shelves, 3 per appliance)

54, Wow. I need to learn more on this. Pls can you help share the training/study link?

>> Please go to education.dell.com or partner academy.

55, "Will users of the 1000/3000 ever be able to use the two spare slots that aren't taken up by cache, or will they be wasted? (Limited to 21 media bays)

>> No plans at this point. Keeping those slots open allows for upgrade to upper models

57, Are these slides available to download from the portal?

>> This will be shared afterwards.

58, "Guys, are you going to send us this presentation and the recordings?

>> Yes, it will be available

59, any plans on having NVMe in Expansions Shelves?

>> Yes, on the roadmap

61, "Always Single-Drive scale-up, or at some point it will need adding more disks at once. I'm referring to disk partnership groups in unity.

>> live answered (like Unity, single-drive scale up within the RRS – 25 drive dynamic raid resiliency set – starting a new RRS would need 6 drives minimum for 4+1)

62, "Does the RRS potentially offer worse granularity versus SC and Unity XT - i.e. 6/10 drives. Where SC and Unity XT can offer single drive upgrades?

>> PowerStore can scale in single drives.

63, I hope we are going to get the recorded version of this training?

64, so we can have an RSS 8+1 and another RSS 4+1?

>> live answered

65, "But not always single drives, when an RRS is at max the next step is six or ten?

>> Single drives will add capacity, you will just not see any extra capacity (e.g. larger drive capacity) until you hit a 4+1 RRS amount"

66, "let say we bought 20 disks, what is the split (RSS)?

>> live answered (RRS limit is 25 drives)

67, Do i need to connect the PowerStore Appliance to TOR Switch even when i use only block FC connection and have only one Appliance?

>> Only on multiple appliances

68, is that means there's no ESXi on the PowerStore T?

>> Correct, only X model runs ESXi allowing AppsON capability"

70, But in that case, is it able to run things like K8S, Ansible etc.?

>> PowerStore integrates seamlessly with VMware and a broad ecosystem of leading DevOps and open management frameworks. Two-way VMware intelligence is built into the core architecture, and powerful plug-ins for CSI, Kubernetes, Ansible, and vRealize Orchestration (vRO) automate workflow processes across a broad range of deployment scenarios.

71, So it is possible to configure with 8 drives as the same size. It will use RAID 5 (4+1) +1 for spare space. So, remaining 2 disk won't be wasted they will be automatically added to the Raid set?

>> Correct, no wasted space

72, "my bad - for numbers - After the first 25 disks, if you buy up to 9 more disks this new RSS will be 4+1? BUT it will be seen into the SAME pool (RSS internal structure)?

>> If you have 36 drives after upgrade the system will split the backend into 8+1 sets

73, NAS Server is working Active-Active or Active-Passive?

>> Active/Passive, NAS only runs on one appliance, but you can run more than one NAS Server (container) distributed across the 2 appliance nodes.

74, How the iSCSI protocol work when the First 2 ports of the 4-port card are LACP bond (iSCSI do not support LACP)?

>> LACP only is on the T-series ports, iSCSI on the other hand is not supported on software iSCSI port binding (vSwitch on X-series)

75, can I config the iSCSI to work with 2 subnet or only one subnet?

>> One subnet

76, what about direct connect from hosts? is't possible at any point without additional IO Modules?

>> Yes, you can direct connect, but FC only

77, what is the advised vlti link bandwidth between ToR SWs. Will be 100 Gbits enough? Will it affect the Power store performance?

>> 25Gb is sufficient so 100Gb is fine.

78, So can we say this is an improved HCI from Dell EMC?

>> live answered

79, why i would go for PowerStore x instead of VxRail?

>> Depends on the scaling and you can share storage from X models with other servers, whereas VxRail storage is only for that cluster."

80, how i can add and use ports 2 3 of the 4-port card for replication or iSCSI?

>> Slightly different for X and T-series, ports 2 and 3 can be used for iSCSI and replication as well (replication port binding can be set in the PowerStore UI)

81, Can i config and control the IP address per port on the node?

>> Yes, but some differences for X and T-series (e.g. LACP on T-Series)

82, More sections is good idea..

83,"yes but, I don't get the real use case for T model compared to a Unity XT..

>> Full NVMe architecture, scale out, DRR, ...

84, Very very interesting!!! We need more!!!!

85, thank you :-)

87, The only issue is that partners are now playing follow-up with customers. We should have had these conversations before PowerStore announcement globally.

88, Could you make live demo for example how to deploy x model?

>> That's what the deployment training is thought for