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Is it time to Spring clean your Storage?

In this enlightening interview with the storage experts from Fujitsu, NetApp and Storage Fusion, we find out what's driving more and more organisations to switch onto storage infrastructure assessments and uncover some of the hidden costs of data storage.

"Let's start with the basics, what is a Storage Assessment?"

"A Storage Assessment is a fast, non-intrusive analysis of a customer's storage infrastructure that discovers what you have, where it is, what its doing (or not doing) and whether it's being used to maximum efficiency".

"Companies use these assessments services to uncover cost saving areas within the storage infrastructure but also to understand how they can improve their storage infrastructure moving forwards. The assessment is designed to ensure that a customer's storage infrastructure is also ready for the journey to the Cloud, providing them with an agile and cost effective storage platform to support their changing business requirements".

"Without doubt, the storage infrastructure forms the very foundations on which a successful business is sustained and grown. It's critical to understand, manage and optimize your storage environment, both to meet today's business requirements and to enable future growth. It's essential to know that you are getting a good ROI from the hardware, array licenses and management costs. Failing to assess and plan ahead quite simply means you are planning to fail. A Storage Assessment not only gives you peace of mind, it enables you to optimize what you have, plan ahead and make smart purchasing decisions".

"What are the business drivers for these assessments services and are there common scenarios that you see?"

"Obviously cost reduction is a massive business driver and we've seen many examples of these assessment services uncovering huge volumes of redundant or orphaned storage that the customer just didn't know existed. This provides an immediate cost saving to the customer and they can start to think about how that budget will be used in other ways. But outside of the obvious cost reduction, there are few other less obvious but frequently examples that we see".

"We very often see the Storage Assessment used as a cleaning and organising tool when new IT directors and CTO's are appointed into companies. It is a good way of quickly capturing a true picture of the infrastructure landscape but obviously it also helps them quickly uncover cost saving tactics".



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"When two companies have merged and they need to quickly audit what assets they have assessment services work especially well. Attempting to accomplish this manually can take months of manpower and the results are all too often out of date. We have seen examples within large enterprise accounts that found large storage arrays that the customer didn't even know existed".

"Another common request is to assess the storage network to demonstrate that a recent project has been successful, for example a refresh project for the storage estate, a merging of 2 or more IT networks or a consolidation project to maximise space – they all benefit from a final check to see whether the goal was achieved – a tick in the management box you might say". "More recently we spoken to companies that are looking to bring on new IT services and applications but don't know whether they have the storage and backup infrastructure to handle the new requirement, so they need to check that there's sufficient storage available or plan for more to be acquired within the project budget".

"We also find that today's Storage Administrators are just too busy to proactively go looking for orphaned storage that can be reused and it's quite often easier to just buy more disk. Some vendors also make it incredibly easy to consume more disk, it's a bit like an addiction, once you are on it it's difficult to get off".

"We continue to hear that server, application, virtualization and storage teams work in silos so unless there are good processes in place then we will nearly always find something that's reclaimable. In today's virtual world servers can easily disappear but how often does the server team tell the storage team that they can reuse the storage? During the last four years we have identified over 1500TB of orphaned storage, representing savings of more than £5m".

"Knowing what storage tiers you have and how they are being used is essential, so running a Storage Assessment will quickly allow you to understand if a tiering strategy is in place. If everything is flying first class on expensive tier 1 storage, then there may be some cost savings to be made by implementing cheaper tiered storage and automated tiering technologies, although this will be dictated by the application's performance and protection requirements. During 2012, in a partner sample of assessments, over 600TB of storage were analysed, of which 320TB was on tier 0, 250TB on tier 4 and 30TB on tier 8".

"With the growth of Big Data, most enterprises are collecting ever increasing amounts of data to build business intelligence on which to drive forward their business. According to IDC, by 2020 the world will generate 50 times the amount of information and 75 times the number of "information containers" while IT staff to manage it will grow less than 1.5 times".

"Finally, we also find that some customers choose to keep the assessment software running all the time. They really like the insight and snapshot views that the assessment service provides but they also want that comfort of having the storage network constantly being monitored and reported on. This is a very sensible approach as it's like having a virtual consultant keeping an eye on what's happening".

"Presumably some companies can also have major incidents that demand these Storage Assessments?"

"A lot of the time it's not necessarily a major or catastrophic event, but a more subtle change, one that impacts on the approach and planning to the storage infrastructure. For example the appointment of a new IT director, during mergers or acquisitions, or a new storage vendor solution being adopted. In every case though it does take just 1 person to question whether the whole storage infrastructure has been assessed recently and the conversation often starts with "Have we actually had somebody come in and analyse whether we are getting the most out of this investment?".



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"However some incidents will obviously drive new behaviour, after all nobody likes to be in the spotlight because of an infrastructure issue and when you look at the cost of a Storage Assessment it's trivial compared to the cost of the associated hardware being analysed".

"It's also true that some business drivers – such as migration of data, a technology refresh or even a simple asset audit – can influence change which can demand or benefit from a Storage Assessment. The assessment could reveal areas of the estate that are not being optimised, leading to wider and deeper conversations about efficiency and performance".

"Presumably IT departments will try to do a lot of checks and manual assessment themselves before approaching a 3rd party?"

"Absolutely and we encourage companies manage the storage platform thoroughly, but unfortunately all too often this takes is based on very manual processes".

"For example, it's surprising how many storage networks are still maintained and managed on spreadsheets and paper based reports. This will always open up potential errors and oversights over time. Internal processes designed to maintain the integrity of the storage network can, and often do, break down over time and become poor indicators of the true storage network efficiency and ROI".

"It's very challenging for IT departments to ensure that all aspects of their storage management and maintenance are robust enough to capture and update on all storage network moves, ads and changes, especially when you factor in IT personnel changes and the passage of time. In some cases, it's the company's processes that are the problem, however well followed they may be they just haven't evolved as the IT infrastructure has grown and matured".

"The majority of storage teams that we encounter are under constant pressure and do a fantastic job of managing the environment. Many have even developed their own assessment reporting tools using scripts and Excel. These may work fine in very small environments but in larger, more complex environments, it can be very time-consuming and you end up with your own in-house development team. The output is also usually technically focused and isn't really designed for business use. It's much better to bring in a partner that specialises in assessment services so that your own team can focus on your business".

"A truly comprehensive and accurate Storage Assessment will directly feed many diverse business conversations led by different business leaders. For example, reclaimable storage is a big issue for the CFO, while the CTO will value transparency of the storage when considering costs, compliance and efficiency; and even the CEO will consider associated storage costs and how they impact OPEX and environmental overheads".

"How do the assessments actually work – what happens?"

"The first thing that's carried out is an initial discussion with the customer to find out why they think they might need a Storage Assessment, what issues are they seeing that might be impacting on business efficiency, risk, productivity".

"The next thing would be a kick off meeting to go into more detail about which assessment service is going best suit the specific needs of the customer. We also look at the different variations available, for example some companies will prefer a restricted assessment to only highlight the major areas or improvement/risk whilst other firms will ask for a very granular assessment of every storage feature. Some companies may only need support in assessing a restricted piece of their infrastructure, for example a newly acquired storage network following the merging of two companies".



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"Most companies are keen to find areas of saving and improvement, and Storage Assessments certainly do this, but sometimes the most immediate value we provide back to the customer is in highlighting the areas of risks, fault or weakness in the storage network".

"Either way, Storage Assessments are quick and can uncover storage network problems, savings or opportunities within a little as 30 minutes of switching on the assessment service and software. Depending on the scope of assessment Fujitsu can be in and out of the customer premises in the same day or for more in depth assessments we may invest multiple weeks. Ultimately the assessment time and findings are based on the customer's requirements, the size of the storage network and the complexity. We work to present the findings back to the customer and also make clear recommendations based on what we have uncovered".

"Information is presented in a number of intuitive dashboards. This means that high-level information can quickly be presented back in a format that the storage team and non-technical people can understand".

"What are some of the typical Storage Assessments findings?"

"Typical things we uncover include configuration errors where the customer believes they have resilient configurations but this is not the case, or storage that had been used, connected to and disconnected from the server, but not then returned back to the free space storage pool - often referred to as orphaned storage".

"Another common finding is where we uncover that a customer's backup switching infrastructure is running close to its limits, where there may be configurations showing 1 link at 99% and another at 2%, so load-balancing can be reviewed and addressed.

"Customers who are about to purchase new storage hardware may find that the purchase is not necessary when the Storage Assessment highlights free and available storage hardware, possibly hidden in another section of the datacentre".

"For many customers it's the peak and trough of their data storage that really matters to their business. For the Storage Assessments that are run over weeks and months, we can bring this insight to the surface allowing the customer to cost effectively manage the high load peaks Vs lower use time, for example using Fujitsu IaaS as burst capacity to balance out the 2 extremes".

Example - "One partner reported average annual storage growth of 60% among their customers. They found that on average their customers were using around 64% of their total storage capacity, and while a meagre 7% of customers were using thin provisioning, none was over provisioning. When you look at that in relation to data growth of 60% per annum, you start to see the full potential for storage optimisation that exists".

"Can you provide some examples of the most impressive Storage Assessment findings?"

"We recently completed a short Storage Assessment where we uncovered 26Tb of unused storage space that the customer did not know existed. The most surprising aspect of this assessment was that it was found in less than 30 minutes of turning on the assessment software".

"Another recent example was finding £600,000 of added revenue for a hosting company, that used the assessment to uncover infrastructure that the customer did not know existed and that needed to be included in management, migration and cost plans".



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"The last example is not a cost reduction benefit but a time saving story. Following the Fujitsu Storage Assessment, for the first time a high street retailer gained a full view of their storage infrastructure which allowed them to plan and de risk a storage and virtual server migration more effectively, whilst shortening the project lifecycle by 5 months".

"In many cases, customers are bowled over by the transparency they get from the assessment. Often they believe they really know what's happening in their storage environment until we reveal the true picture!".

"The findings of Storage Assessments are as surprising as they are shocking in some cases. It's a sobering thought that up to 50% of organisations risk data loss, combined with the fact that unplanned storage purchases could be costing you as much as 40% more than they would do if you made smart purchases based on accurate forecasting. The good news is that around \$25m worth of orphaned storage was identified across 200 assessments, clearly demonstrating the powerful value of a comprehensive Storage Assessment."

"Should IT departments be concerned about bringing in experts to connect into their network?"

"Minimising risk is of course part of the discussion with any customer. Firstly it's important to understand that we only look at a customer's storage infrastructure, so any access will be based on read only, there's zero requirement for write access.

"Fujitsu would either use dedicated machine from which to run the assessment or we can use a customer virtual/physical machine configured to the customer's security, build and encryption requirement".

"The assessment service only requires access to the administration network connection level, we do not need to be on any data networks and therefore cannot access any customer data. In fact we will not start an assessment service if the customer has provided the wrong access rights".

"The consultant can visit the customer's site and effectively plug in, but an alternative approach is via a management station where the consultant can access the customer's network remotely".

 For more information

regarding Fujitsu Storage Assessments please visit contact Fujitsu at

<https://www.fujitsu.com/uk/webforms/contact/bookform.aspx>

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