

Storage Virtualisation

Simplifying and streamlining data storage through consolidation and sharing of resources



ARROW ENTERPRISE COMPUTING SOLUTIONS

Huge year-on-year growth in data volumes, along with regulatory pressure to preserve and protect data within a tightening legal framework, is fuelling the need for more data storage capacity at an unprecedented rate.

IT managers are constantly balancing the risk of running out of storage with tightening budgets. Yet, typically, huge amounts of storage capacity lie idle across under-utilised servers and disparate storage arrays around the business.

To make matters worse, requirements fluctuate daily and not all data is the same. Some data is crucial to the business, much of it is unstructured, and a significant proportion should be discarded.

Quick Pitch:

With storage virtualisation, storage capacity is removed from the individual user or server and is instead deployed in single or shared pools. Storage capacity is allocated to and accessed by the user or server via the network and can be adjusted to meet actual demand at any given time. Proactively managed by the IT team, disk space can be fully utilised without wastage. Capacity planning, data classification by importance, backup and restore and peak-time balancing all become easier.

There are two basic levels of storage virtualisation:

- **Storage array virtualisation** – data is shared, virtualised and managed on a specific array of storage using the storage vendor's own virtualisation and management software.
- **SAN virtualisation** – the storage pool may comprise more than one array, possibly from multiple vendors, and the virtualisation is implemented via third-party platform-independent technology embedded in the SAN fabric.

Ask your customer...	Tell your customer...
<ul style="list-style-type: none">• How much of the IT budget goes on feeding the demand for storage across the business? Do you know how much is really being spent, including power and cooling?	<ul style="list-style-type: none">• Storage virtualisation will enable them to share and significantly improve their utilisation of storage resources. This will lead to less wastage and lower management overheads.
<ul style="list-style-type: none">• Have you paid for storage capacity that you are not using? Is it a problem to manage increasing demand for storage and ensure appropriate controls and data protection are in place?	<ul style="list-style-type: none">• Storage virtualisation allocates storage as it is required, up to any maximum limit set for a user or application. Fewer devices are needed, delivering reduced spend, improved centralised management, faster deployment of storage, increased security and enhanced disaster recovery.
<ul style="list-style-type: none">• Are you planning to consolidate storage into more manageable pools?	<ul style="list-style-type: none">• Storage virtualisation can be deployed on traditional servers or virtualised servers and, therefore, it can be implemented in conjunction with a wider virtualisation strategy, before or after.
<ul style="list-style-type: none">• Are you struggling to complete backups in time, especially at remote sites? What level of control do you have over business data? Are you confident that valuable information can be rapidly restored in the face of disaster?	<ul style="list-style-type: none">• With fewer devices and less data, backups will be quicker and more frequent after virtualisation.
<ul style="list-style-type: none">• Do you understand how much you are spending on powering and cooling your data storage infrastructure?	<ul style="list-style-type: none">• Disks consume significant amounts of power to run and cool. Potential environmental and cost benefits are substantial.
<ul style="list-style-type: none">• Can you find data easily across multiple storage devices? Is data unnecessarily duplicated on different devices? Can data created in one department be readily accessed by other authorised users?	<ul style="list-style-type: none">• A virtualised storage infrastructure will enable them to apply more sophisticated data management tools such as data de-duplication, classification and archiving. There will be less data – and it will be better managed.

Arrow ECS is able to work with you to help your customers decide on the best way to implement storage virtualisation and with our carefully selected products give your customers complete control over their storage environments.

Summary of customer issues and the benefits of deploying storage virtualisation

Your customers issues	Impact on their business	Benefits of deploying storage virtualisation
Complexity: multiple/diverse storage devices are largely attached directly to the server or to users, with a variety of management interfaces.	Poor utilisation of storage, wasted disk space and ineffective management control of resources.	Dramatically reduces the number of storage devices - fewer physical disks, same useable capacity. Better allocation and matching of capacity to user demand.
One type of (expensive) disk fits all data.	Low value or aged data is stored on expensive devices.	Opportunity to implement cost-effective tiered storage and de-duplication of data.
Investment in storage is always higher and ahead of usage because idle, spare capacity is not accessible to those who most need it when they need it.	Capacity planning and meeting demand at peak times can be challenging. Physical spend on disks is ahead of actual need.	Easier deployment of extra capacity when required, less wastage and idle disk space. Spending is deferred, reduced overall and it will leverage and complement existing investments in storage.
High energy consumption for powering, cooling with creeping demand for space.	Energy and space costs may be hidden but have a real impact on the bottom line.	Significantly reduced power, footprint, energy and space costs.
Diverse backup and business continuity policies increase business vulnerability to disaster and unplanned outages.	At best, data becomes difficult to access, at worst, business continuity is threatened.	Being able to rapidly and regularly backup storage means quick recovery from unplanned outages and protection of critical data.

Spot the sales opportunity

Who will benefit most from a storage virtualisation solution?

Every medium to large business has a problem with storage capacity, management or protection. It is almost inconceivable that your customer would not be interested in considering storage virtualisation, unless they have already done it.

However, the bigger the company, the greater the number of servers and storage and the more locations on the network, then the greater the problem. The key to success is to understand how their existing environment is structured and what their primary pain points are around storage management.

Other considerations and related material

Implementing storage virtualisation can impact other key areas of your customers infrastructure, in particular their network, servers, security and applications, all of which can be virtualised and optimised to achieve similar benefits.

Considering and planning your strategy on these separate but intrinsically related areas from the outset will ensure you select the most appropriate and compatible framework of virtualisation technologies to meet the specific requirements of your customers business.

Look next at other related Arrow ECS solution briefs

- **Server Virtualisation**
- **Desktop Virtualisation**
- **Network Virtualisation**
- **Application Virtualisation**
- **Security Virtualisation**

To access all our solution briefs and related material, please visit www.arrowecs.co.uk/virtualisation

For further information, please contact your Arrow ECS Account Manager on **0800 983 2525** or visit www.arrowecs.co.uk/virtualisation