



Unlimited storage for the Digital Enterprise

A Scality briefing paper



A must read for Enterprises

In the face of the digital revolution now impacting all sectors, today's Enterprise IT functions face a number of common and increasingly demanding challenges. Central to these is the fact that, in many cases, current storage infrastructures are unable to meet the demands of the digital Enterprise.

So what is the solution? This paper shows the way forward by examining:

- > The forces creating new demands on the Enterprise IT function
- > The limitations of current storage architectures
- > The transformational potential of software-defined Object Storage
- > The role of Scality's market-leading Object Storage platform in meeting the needs of Enterprise IT

“For Enterprise IT departments across every sector, transitioning to an Object Storage platform is rapidly becoming a priority.”

Paul Turner
CMO, Scality

Digital transformation demands

The current wave of digital transformation is impacting every organization in every sector of the economy. Technological change is driving rapid business change, which in turn is driving new demands on the IT function.

More and more data

The digital revolution is leading to massive increases in data volumes that need to be managed and stored within Enterprises.

More focus on innovation

To stay ahead of disruptive market changes, organizations are increasing their focus on innovation. IT departments are expected not just to keep systems up and running, but also to contribute to meeting the need for innovation.

More in-house apps

The greater focus on IT as a source of competitive advantage – alongside the increasing importance of apps – is resulting in a significant increase in in-house app development as companies seek to build their own IP.

More need for speed

The accelerated pace of change across many sectors is increasing the pressure on time-to-market. Not only do IT teams need to do more new things, they need to do them more quickly.

More systems exposure

The trend towards Everything-as-a-Service is leading to a different mindset – not just in the ways firms consume IT, but also in terms of what they deliver to their customers. The need to make everything available as a service means that more of an Enterprise's systems has to be exposed to external users.

More expectations

The consumerization of IT is leading to heightened user expectations and an increased focus on employee and customer experience. Everyone now expects immediate, always-on access to their apps and data.

The public cloud problem

Alongside all these demands, the rise of public cloud services is creating new assumptions about what is possible:

- > **Finance** departments see headline rates quoted for cloud storage and wonder why their internal IT is costing so much more
- > **Developers** – under pressure to get new apps to market quickly – love the immediate availability of new compute and storage, and get frustrated that their in-house IT cannot respond as quickly
- > **Users** – whether employees or customers – now take for granted that apps will always be available and respond immediately; when Enterprise apps do not perform in the same way, the IT department is blamed

All of this creates new pressures for IT departments, who understand that while public cloud platforms offer advantages, they are not the right answer to every question.



280 million +

The number of mobile app downloads per annum expected by 2020, with 4 times as many devices as people connected to the internet – all of which will generate even more data¹



44 zetabytes

The forecast volume of data stored by 2020²

All of these factors are driving new demands on Enterprise IT – particularly storage environments

¹ IDC IoT and Digital Universe Update, Aug 2016

² IDC IoT and Digital Universe Update, Aug 2016

Data is now a strategic asset

As data volumes increase, so do perceptions of its potential value to businesses. A decade ago, the only serious investors in data analytics were retailers and a few other niche sectors. Now, data is regarded as a strategic asset for all organizations.

When data meets IoT

The combination of data analytics with IoT technologies is leading to a new focus on using data to drive greater automation, increase efficiency and underpin innovative new services.

This creates extra pressure to ensure that an organization's data is easily accessible and can be manipulated, aggregated and analyzed to drive business decisions.

89%

The percentage of senior executives who say access to data is critical to being competitive in their industry¹

72%

The percentage of senior executives who say greater use of data is likely to change the products and services they offer²

The unsustainability of existing storage models

The current legacy storage architectures of many Enterprises were not built for the needs of a digital business. Critical limitations include:

- > **Siloed and fragmented infrastructures** are difficult to manage and create significant admin overhead, preventing Enterprises from achieving a holistic view of their data and so restricting their ability to derive new data-driven insights
- > **Expensive and inefficient storage technologies** mean that, as data volumes grow, they consume an increasing share of budgets, preventing investment in new technologies

70%

The percentage of IT pros who expect storage spend to increase in the next 12 months³

- > **Inability to scale** leads to a cycle of major upgrades every few years, which is highly disruptive and slows business growth

Every
3
Years

The storage hardware replacement cycle that traditional storage vendors build their business on

- > **Lack of support for modern interfaces** such as S3 or OpenStack – and/or lack of the performance profile needed to deliver newer content types (such as video) – restricts the development of innovative new services
- > **Storage platform limitations** mean that deploying new apps and workloads is a slow and time-consuming process, frustrating business users and driving the growth of shadow IT
- > **Lack of 'always on' system availability** – needed by digital businesses to meet the 24/7 demands of employees and customers – means organizations are having to build massive redundancy into their infrastructures, which increases costs

All of which leads to the inescapable conclusion that, given today's pressures on Enterprise IT, current storage models are simply unsustainable.

Manageability has been highlighted as the top challenge by storage users in 2016⁴

The transformational power of Object Storage

A newer type of storage platform – software-defined, scale-out Object Storage – has a vital role to play in overcoming the legacy storage limitations that are holding back Enterprise IT. Critical advantages over traditional storage platforms include:

- > The ability to scale beyond petabytes
- > Easy management at scale
- > The versatility to support both static and unstructured data – delivering maximum flexibility to support both new and legacy applications from a single platform
- > Cloud-like cost efficiencies
- > Advanced system security and reliability
- > Hardware freedom with broad compatibility

>80%

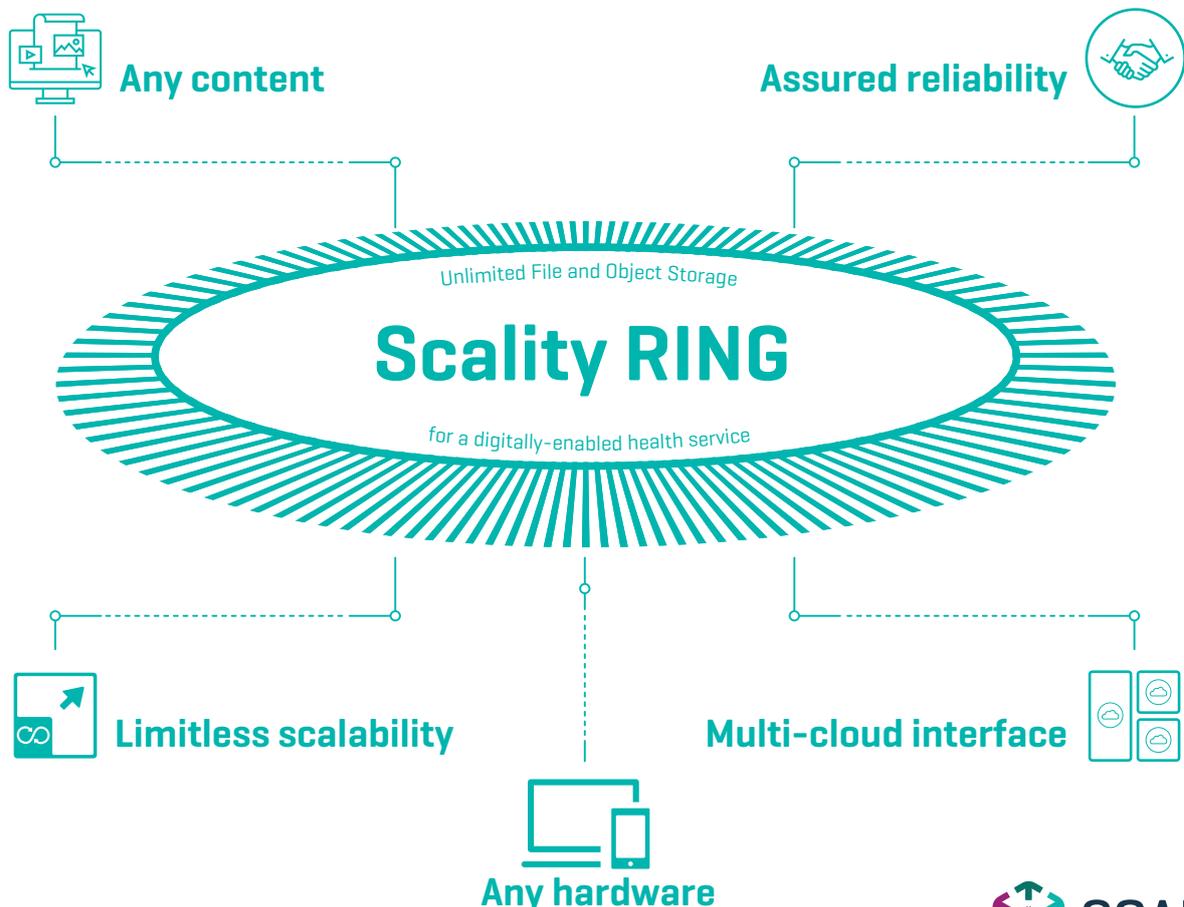
The percentage of business data that will be stored in scale-out storage systems in Enterprise and cloud data centers by 2021 (30% today)⁵

The superiority of Scality RING

Scality RING is the market-leading Object Storage software that turns any standard x86 servers into web-scale storage. With the RING, organizations can store any amount of data, of any type, with outstanding efficiency.

Scality RING provides a range of significant benefits:

- > **Any content** – access, store and manage all legacy and digital content from one platform. Scality RING, the only storage platform with native support for both File and Object, maximizes storage flexibility
- > **Any hardware** – total hardware freedom enables any standard x86 server to be used
- > **Multi-cloud interface** – launch public or private cloud services with a proven storage foundation, with both AWS S3 and OpenStack compatible interfaces for maximum flexibility
- > **Assured reliability** – a shared-nothing, distributed architecture provides geographical redundancy and no single point of failure
- > **Limitless scalability** – scales to hundreds of petabytes to manage billions of small or large files



Why unlimited storage from Scality RING is right for the digital Enterprise

For today's digital Enterprise IT teams and the organizations they support, Scality RING delivers across the board.



Reducing budget pressures by driving down storage costs

By combining Scality's innovative technology with comprehensive commercial support from our partners, we drive down the costs of both Enterprise storage and legacy support contracts. This frees up budget and resources to invest in new technologies.

The key benefits of our advanced technology include:

- > Increased storage efficiency at scale
- > Lower hardware costs through dedicated high-density x86 servers
- > Ability to mix and match new and existing hardware in the same system
- > Replacement of expensive legacy systems by consolidating multiple workloads onto the same storage platform, even across multiple locations
- > Elimination of back-up requirements
- > Reduction in Storage Area Network (SAN) costs
- > Significantly lower storage overhead than traditional storage



Improving compliance and reducing shadow IT risks

By enabling Enterprises to build their own private cloud, Scality brings data 'inside the firewall' to increase visibility of what you have and where it resides.

Collapsing multiple siloes into one platform, distributed across multiple locations, Scality RING also ensures more data location control and easier sovereignty requirement compliance.

Plus, Scality's out-of-the-box integrations with file collaboration/sync and share solutions includes the ability to equip users with Dropbox-type functionality on top of Scality in a compliant and secure way.

Eliminating the need for development teams to stand up their own environments on public cloud platforms, Scality gives them low-cost, S3-compatible storage.



Freeing up IT resources to drive innovation

Significantly more efficient and easier to manage than legacy storage systems, Scality enables IT teams to move beyond just keeping existing systems up and running.

The admin burden is greatly reduced by collapsing multiple siloes on to a single platform, which minimizes complexity and duplication of effort. The impact on resourcing of any hardware failures is also reduced through Scality RING's self-healing architecture. Maintenance work can be scheduled when convenient, rather than as an emergency – and doesn't affect availability.

Large-scale, globally-dispersed storage operations can be managed simply and cost-effectively, with many common storage optimizations automated through RING Supervisor GUI.

Management is further simplified by Scality Cloud Monitor, providing turnkey 24/7 monitoring of an Enterprise's Scality RING Object Storage platform and S3-optimized Scality products. Intuitive dashboards help visualize events, providing configuration assistance, system health checks and configurable alarms for abnormal KPIs. Scality Cloud Monitor also remotely monitors storage environments in real time, and generates predictive analytics to ensure storage systems are optimized.



1.3-1.7 x

vs



3.0-5.0 x

The difference in storage overhead between Scality and traditional architectures

Scality's first customer in 2010 – Telenet – has run multiple generations of applications, hardware and the RING over seven years with no downtime.



Improving agility and speed of response

Transitioning to a scale-out storage platform provides a completely new approach to infrastructure delivery, enabling Enterprises to respond much faster to new business requirements.

Traditional models usually require a new array or stack every time a new workload needs supporting, with delays resulting from hardware lead-times. Enterprises have had to plan well ahead – and often over-provision – to meet ‘just-in-case’ requirements.

With Scality, there is simply no need for big step changes in capacity to meet new requirements and no need to plan 12 months ahead. Existing infrastructure can be re-used, with the simple addition of more disks and/or standard x86 servers as and when required.



Ensuring data is always accessible and available

By delivering cloud-like efficiencies, Scality makes it economical to keep more data online and accessible by apps. Consolidating multiple data siloes on to a single platform also makes it easier to aggregate data for consolidated analysis.

Standards-based interfaces and multi-protocol file support simplify new apps development, while unlocking extra value from existing data stores.

In addition, Scality’s broad ISV partner ecosystem supports a wide range of applications to maximize the value of data assets, including Analytics, Backup, Archive, Messaging, Big Data and Compliance.

With its shared-nothing, distributed architecture, Scality delivers guaranteed 100% availability – backed up with rigorous SLAs – and built-in Disaster Recovery features.

Insulating data from hardware failures, Scality Erasure Coding and variable replication Class-of-Service protects against multiple, simultaneous disk and server failures. Plus data integrity is assured through integral CRC checksums on stored objects.



Minimizing transition risks and disruption

In conjunction with our extensive partner ecosystem, Scality provides support every step of the way in the transition to Object Storage, ensuring minimal risk and disruption. Together, our support includes:

- > Professional Services transition planning and execution
- > Full apps migration support
- > Comprehensive change management and education services to retrain staff on new technologies
- > Proof of Concept support and reference architectures to reduce risk and accelerate time to value

Scality RING’s unique features that underpin seamless transitions include:

- > Support for File, Object and OpenStack Storage that enables any unstructured data-type and multiple applications to be transitioned to Scality
- > Easy integration of new and existing applications – for example, with full S3-compatibility and Microsoft Active Directory and AWS IAM support



\$8 million cost savings – 229% ROI

In 2016, Forrester’s Total Economic Impact study (TEI) looked at the benefits of the Scality RING compared with traditional NAS storage arrays. For a customer with 2 petabytes growing to 4 petabytes, Scality RING was shown to deliver \$8m in expected cost savings (over \$3m from capital savings alone) and a 229% ROI over the life of the storage. It also delivered a capital payback within just six months.

About Scality

Scality is a pioneering innovator of software-defined, multi-cloud data storage at petabyte scale. Recognized as a leader in distributed File and Object Storage by Gartner and IDC, Scality assures data control and freedom to manage data across clouds. Our products scale on-demand, non-disruptively, and drive lower cost for today's leading enterprise companies.

Be sure to get your complimentary copy of the **Gartner Magic Quadrant for Distributed File Systems and Object Storage report**.



Gartner Magic Quadrant for Distributed File Systems and Object Storage report
(<http://bit.ly/2ip1NSh>)



800 billion +
objects managed by Scality



150 clouds +
Scality cloud implementations

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