



# IBM Cloud Object Storage archive for Interica PARS data

*Powered by IBM Cloud Object Storage*

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## Benefits

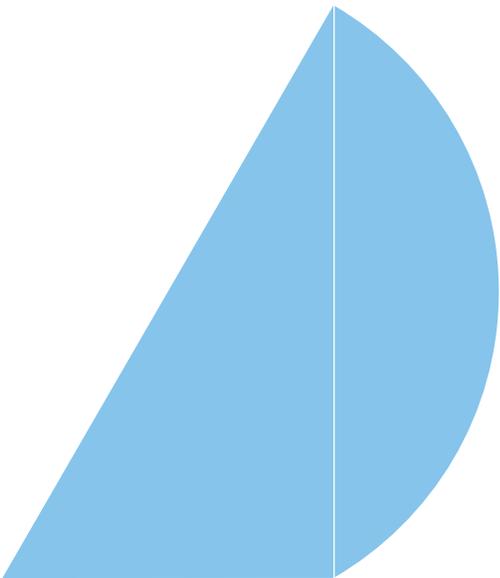
- Decreases the need for primary storage and offsite tapes by migrating inactive data to more cost-effective storage
  - Supports always-on availability with a shared-nothing architecture that offers industry-leading scalability
  - Helps deliver robust security with data encryption at rest and user credentials and digital certificates designed to regulate access
  - Facilitates a simplified management structure with a feature-rich graphical user interface designed to help you secure your storage system with reduced intervention
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## Helping you meet your data and project management challenges

As an advanced project-level data management system, Interica Ltd. PARS® software helps users such as geologists and geoscientists manage complex digital content for long-term knowledge retention, compliance and storage. The application makes it easier to reference and index data by project regardless of the source so that data analysis and management can become more productive and strategic. PARS software captures this information in one consistent archive object, which makes handing it off to the IBM® Cloud Object Storage System™ a seamless, more cost-effective archival alternative to traditional network-attached storage (NAS) systems. Especially in cases where 50 percent or more of project data is inactive, savings can multiply quickly. When projects become active, employees take on new roles or compliance audits become necessary, users can find their project data with greater search granularity. PARS has been used extensively by oil and gas companies to archive exploration data for the last 15 years. The Interica PARS software also has value for high-tech, manufacturing, telecommunication, pharmaceutical, automotive, media and retail enterprises.

## Reducing the high cost and complexity of traditional archive storage

Many organizations archive all their data on traditional NAS systems, which can be costly and can force unwanted capital expense in the short term. Alternatively, other organizations manage less-critical data by storing it on tape, keeping repositories onsite or offsite. This process is operationally complex, requiring expensive hardware, specialized staff and detailed procedures.



As time goes on, these libraries can become information silos, especially as various business units make divergent archiving choices or add acquisitions to the mix. This often results in multiple processes being used to protect applications and endpoints, adding complexity and redundancy in the process.

Dependence on traditional NAS, storage area network (SAN) and tape archive solutions can lead to:

- Expensive archiving of inactive data
- Unwanted cost and complexity to maintain multiple vendors and hardware
- Downtime and data loss because of reliance on tape for restores
- An inability to scale seamlessly — especially for large quantities of unstructured data
- Long recovery times from offsite backups
- Lack of transparency in managing both onsite and offsite data repositories

Today's project managers need more flexibility, efficiency and convenience. In addition, they need to derive insights from their data economically while ensuring data integrity and security.

## Deploying IBM Cloud Object Storage to manage unstructured data more effectively

IBM Cloud Object Storage provides flexibility, scalability and simplicity designed to help you store, manage and access today's rapidly growing volumes of unstructured data in a private, public or hybrid cloud environment. IBM Cloud Object Storage transforms storage challenges into business advantages by reducing storage costs while more reliably supporting both legacy and emerging cloud workloads.

IBM Cloud Object Storage is built on technology from object storage leader, Cleversafe®, which was acquired by IBM in 2015. Some of the world's largest repositories rely on IBM Cloud Object Storage. To learn more, please visit:

[ibm.com/cloud-computing/products/storage/object-storage](https://ibm.com/cloud-computing/products/storage/object-storage)

## Pairing IBM Cloud Object Storage with the Interica PARS solution

The Interica PARS application sends data to IBM Cloud Object Storage by using an S3-compatible protocol whether that storage is on-premises or in the cloud. Archive sources can be Linux or Microsoft Windows file systems, tape libraries, other S3-compatible endpoints or applications with which Interica PARS is integrated. IBM Cloud Object Storage can also be configured as replication endpoints for archive sets written to disk, tape or other S3-compatible endpoints. These replication jobs can be configured to occur on a scheduled basis or immediately after successful archiving. After the successful upload of an archive, Interica PARS can also verify the integrity of an archive dataset (see Figure 1).

PARS automatically captures metadata, can write to cloud applications and can replicate legacy archives from tape to a cloud appliance for storage platform independence. The key benefit of a PARS deployment is that users can discover all the project data on their production file systems regardless of vendor application source, analyze the discovered project metadata to tag projects for specific actions and then perform those actions according to user-driven data policies. PARS can reference projects not just at a system or file level but also at a project level to identify all project information sources and specific markers such as project leader, duplicate content or project size. This gives users and data managers significantly more control and transparency for data mining, project recall and the ability to “rewind” a project to a point in time by using built-in rollback features. This is particularly important for archives made at key milestones.

**IBM Cloud Object Storage delivers flexibility, scalability and simplicity when storing PARS data**

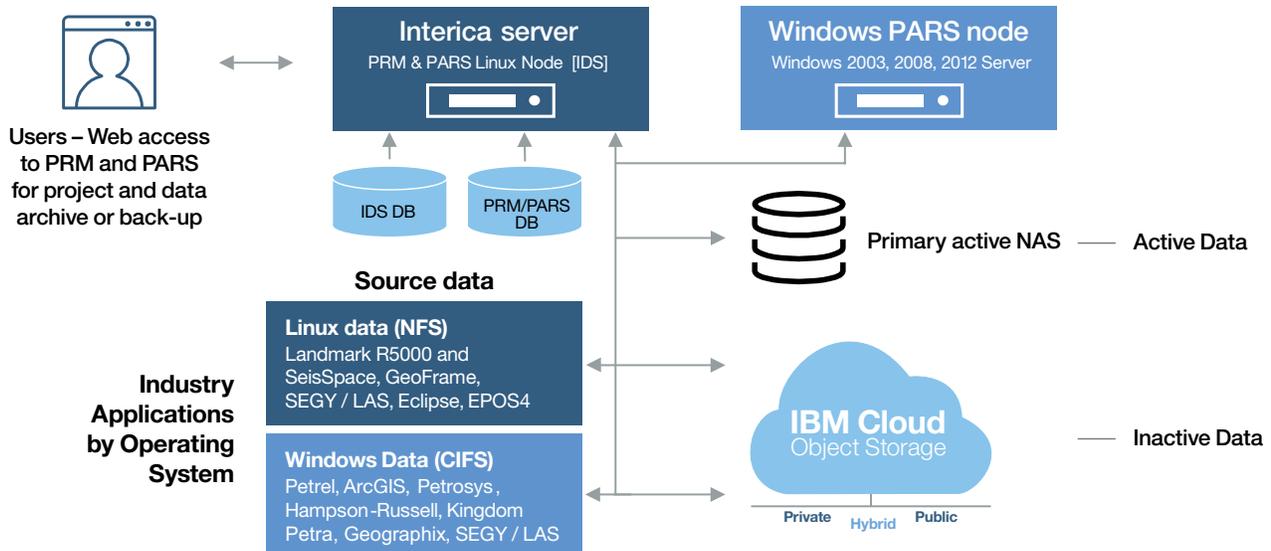


Figure 1. IBM Cloud Object Storage can act as an archive option for PARS inactive data.

**Increasing flexibility, scalability and simplicity**

Flexible deployment options: Gain unmatched flexibility by choosing deployment options that meet your needs for a private, public or hybrid cloud solution. Choose among on-premises, private cloud, public cloud or hybrid cloud options that use a common software infrastructure with flexible license arrangements and multiple interface options:

- **Private cloud:** Deploy object storage on-premises for optimal performance and control. IBM software runs on industry-standard hardware within your data center.
- **Dedicated cloud:** Choose an isolated, single-tenant system in the IBM Cloud that uses dedicated bare metal servers to optimize control and performance.

- **Public cloud:** Choose a public cloud deployment for unpredictable data growth. The IBM Cloud offers object storage in a shared, multitenant infrastructure.
- **Hybrid cloud:** Expand the object storage system in your data center through integration with the IBM Cloud. Customize the hybrid deployment to meet your precise requirements.

**Reduced backup and offsite storage costs:** Reduce the need for primary storage and replace onsite or offsite tape storage altogether to increase data access. This can lead to significant savings in backup software licensing and support and can reduce the complexity associated with tape storage (see Figure 2).

**IBM Cloud Object Storage provides a reliable, cost-effective back-up solution for PARS data**

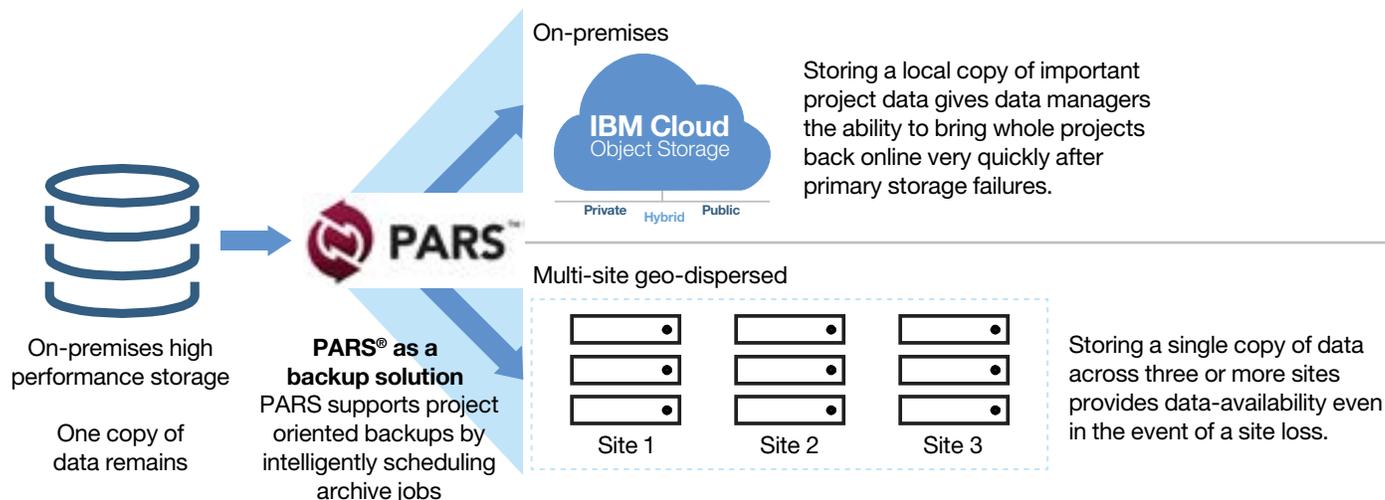


Figure 2. IBM Cloud Object Storage can act as a backup option for PARS data on-premises or off-premises.

**Exabyte-plus scale:** Scale as needed by directing your PARS data streams to virtually unlimited capacity. The web-scale storage platform helps performance and capacity to scale independently — reaching exabyte levels and beyond. The IBM single, global addressable namespace delivers a unified, single point of management and access that can scale beyond the limits of traditional centralized metadata servers. Therefore, users don't need to worry about provisioning adequate tapes or local storage to hold the required backup data.

**Reduced impact on current processes:** Integrate IBM Cloud Object Storage into your existing data workflows. By configuring IBM Cloud Object Storage as an endpoint in your existing PARS deployment, users and administrators can quickly set data archive and retrieval policies. Once policies are established,

users can begin taking advantage of the vast IBM Cloud Object Storage capacity to protect valuable assets, bring offline tape assets online or free up valuable capacity on primary storage by archiving inactive data. This can be accomplished using existing metadata information captured by the PARS software.

**Always-on accessibility:** Improve access to PARS project-level data stored in IBM Cloud Object Storage with an environment designed for always-on accessibility. Using a shared-nothing architecture that provides industry-leading scalability, the software supports strong data consistency models that let you access your data across multiple time zones. The namespace is virtually unlimited with a distributed architecture that eliminates scaling problems caused by other centralized architectures. Data is uniquely addressed and erasure-coded for protection. This helps ensure your data is available even when drives, nodes, networks or sites fail.

**Security rich:** Help enhance security with patented IBM SecureSlice security for data encryption at rest for objects. Additionally, IBM Cloud Object Storage uses Transport Layer Security (TLS) encryption for data in motion, user credentials and digital certificates to help protect data and regulate access. Objects written with SecureSlice are encrypted, protected and divided into several slices, with no copy of the data residing in any single disk, node or location. Individual objects can be read bit-perfect by using a subset of those slices. Thus, even if a disk, node or location is physically breached, it will be virtually impossible to decode the data using algorithmic computation.

**Simplified management:** Use a rich set of features that help you more easily manage hundreds or thousands of petabytes or exabytes of data with a small staff. The core technology is designed with a robust management graphical user interface that lets you provision, monitor, troubleshoot and better secure your storage system with reduced intervention. Built-in reports and interactive charts help ensure that your system is operating efficiently. Physical and logical components of the overall system can be managed through a browser-based interface or a robust application programming interface (API)-based management system. This also facilitates integration with other management systems or tools of your choice.

### Industry recognition for IBM Cloud Object Storage

IBM Cloud Object Storage is built on technology from object storage leader Cleversafe®, which was acquired by IBM in 2015. Some of the world's largest repositories rely on IBM Cloud Object Storage. To learn more, please visit:  
[ibm.com/cloud-computing/products/storage/object-storage](http://ibm.com/cloud-computing/products/storage/object-storage)

### Industry recognition:

- Gartner, Inc., awarded IBM Cleversafe dsNet (now IBM Cloud Object Storage) the highest scores in the Analytics, Archiving and Cloud Storage use cases in its March 2016 Object Storage Critical Capabilities report.<sup>1</sup>
- IDC Research, Inc. named IBM Cloud Object Storage as a leader in object storage because of its proven ability to deliver data scalability, reliability and availability in its MarketScape: Worldwide Object-Based Storage 2016 Vendor Assessment in December 2016.<sup>2</sup>
- Forrester Consulting, LLC, ranked Cleversafe storage solutions as 72 percent less expensive than the equivalent Redundant Array of Independent Disks (RAID) solutions.<sup>3</sup>

### Take the next step

To learn more about IBM Cloud Object Storage and sign up for a cloud public services trial, visit [ibm.com/cloud-computing/products/storage/object-storage/cloud](http://ibm.com/cloud-computing/products/storage/object-storage/cloud).

For more information on IBM Cloud Object Storage or Interica PARS project-level data, please contact your IBM representative, or visit the following website and look for "Solutions":  
[ibm.com/cloud-computing/products/storage/object-storage](http://ibm.com/cloud-computing/products/storage/object-storage).

### Endnotes:

1. Gartner, Inc. *Critical Capabilities for Object Storage 2016*. ID G00271719. March 31, 2016. ([www.ibm.com/marketing/iwm/dre/signup?source=mrs-form-8563&S\\_PKG=ov51769](http://www.ibm.com/marketing/iwm/dre/signup?source=mrs-form-8563&S_PKG=ov51769))
2. IDC Research, Inc. *MarketScape: Worldwide Object-Based Storage 2016 Vendor Assessment*. IDC# US41918416e. December 2016. ([www.ibm.com/common/ssi/cgi-bin/ssialias?htmlfid=WUL12381USEN&](http://www.ibm.com/common/ssi/cgi-bin/ssialias?htmlfid=WUL12381USEN&))
3. *The Total Economic Impact™ of Cleversafe, an IBM Company: Cost Savings and Business Benefits Enabled by Cleversafe Object Storage*. A commissioned study conducted by Forrester Consulting on behalf of Cleversafe. March 2015. ([www.ibm.com/common/ssi/cgi-bin/ssialias?htmlfid=KUL12373USEN](http://www.ibm.com/common/ssi/cgi-bin/ssialias?htmlfid=KUL12373USEN))



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Produced in the United States of America  
March 2017

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