

optimize your data management with azure storage

Whether dealing with large volumes of data or needing flexible options for unstructured information, Azure provides a reliable and efficient platform that offers various solutions tailored to your database storage needs. Choosing the right storage option is crucial for your business's success. But where should a business start? How does one go about selecting the options that provide the best fit for their data?

Prevalent Azure Data Storage Options

Delve into Azure's diverse storage options, each tailored to specific data needs, from fully-managed databases to scalable file storage systems.

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Azure SQL Database

Fully-managed relational database with auto-scaling, built-in intelligence, and robust security.

Key Features: Scalability, Performance, Security

Limitations: Higher costs for large-scale databases and limited control over hardware/software configurations.

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Azure Cosmos DB

Globally distributed, multi-model database service for any scale of web, mobile, gaming, and IoT applications.

Key Features: Global Distribution, Multi-model Support, Low Latency

Limitations: Partitioning complexity and steep learning curve for NoSQL newcomers.

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Azure Table Storage

NoSQL database store for semi-structured data. Ideal for rapid development using key/attribute stores.

Key Features: Scalability, Fast Access, Encryption-at-rest

Limitations: Query capabilities for complex and highly relational data are limited.

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Azure File Storage

Managed file storage service that supports SMB protocol, ideal for lift-and-shift scenarios.

Key Features: SMB Protocol Support, Shared Storage, Hybrid Cloud Friendly

Limitations: Reduced scalability and performance for large-scale data.

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Azure Blob Storage

Optimized for storing massive amounts of unstructured data, such as text or binary.

Key Features: SMB Protocol Support, Shared Storage, Hybrid Cloud Friendly

Limitations: Reduced scalability and performance for large-scale data.

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Azure Queue Storage

Messaging store for reliable messaging between application components in the cloud or on-premises.

Key Features: Scalability, High Availability, Secure Messaging

Limitations: Restricted message payload size, no payload types.

choosing the optimal storage type

Navigate through the decision-making process with ease, selecting the ideal Azure storage type for your data's unique structure and business requirements.

Data Type

- **Structured:** Azure SQL Database for relational database structures.
- **Semi-Structured:** Azure Table Storage for its NoSQL features.
- **Unstructured:** Azure Blob Storage for large amounts of unstructured data.
- **Mixed or File-Based:** Azure File Storage for large amounts of unstructured data.
- **Globally-Distributed or Multi-Model:** Azure Cosmos DB for web, mobile, gaming, and IoT applications needing global distribution.

Transactional Value

- **High:** Azure SQL Database or Azure Blob Storage for high transaction volumes.
- **Medium:** Azure Table Storage for a balance in performance and cost.
- **Low:** Azure Queue Storage for low throughput and messaging.
- **File-Sharing Workloads:** Azure File Storage for cloud-native file share capabilities.
- **Globally-Distributed, High-Throughput Scenarios:** Azure Cosmos DB for global scale transactions.

Access Patterns

- **Random Access:** Azure Blob Storage for flexibility in data access.
- **Sequential Access:** Azure Queue Storage for sequential data operations.
- **File-Based and Shared Access:** Azure File Storage for shared access via SMB protocol.
- **Globally-Distributed Access:** Azure Cosmos DB for applications requiring global access with minimal latency.

Scalability Needs

- **Rapid Growth:** Azure Blob Storage for scalable storage needs.
- **Moderate Growth:** Azure SQL Database or Azure Table Storage for stable data structures.
- **Stable/Minimal Growth:** Azure Queue Storage for predictable scaling.
- **File-Based Scalability:** Azure File Storage for easily scalable file shares.
- **Global Scalability:** Azure Cosmos DB for applications requiring worldwide distribution and scalability.

operations
anywhere



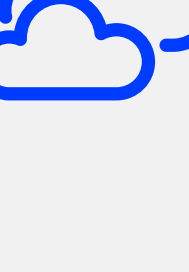
best practices for data storage

Explore essential best practices for Azure data storage and strategies to manage data across various storage types efficiently and securely, ensuring optimal performance and security.



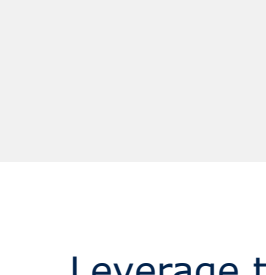
Data Partitioning

Divide your database to improve manageability, performance, and scalability. Partitioning helps distribute load and optimizes query performance.



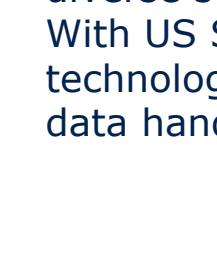
Regular Backups

Ensure the safety and recoverability of your data with routine backups. Regular backups protect against data loss due to failures or breaches.



Data Encryption

Secure your data both at rest and in transit. Encryption is crucial for protecting sensitive information and maintaining compliance.



Efficient Indexing

Implement indexing strategies to speed up query processing. Efficient indexing leads to quicker data retrieval and improved application performance.

Leverage the full power of Azure Storage through US Signal's expertise. Our deep-rooted partnership with Microsoft equips us with the tools and knowledge to enhance your data management strategies. As a recognized Microsoft Solutions Partner with expertise in Infrastructure (Azure), Data & AI (Azure), Digital & App Innovation (Azure), and Modern Work, we're uniquely positioned to seamlessly integrate Azure's diverse storage capabilities into your business environment. With US Signal, experience a blend of Microsoft's advanced technology and our proven solutions, tailored to elevate your data handling to new heights of efficiency and security.

Contact US Signal today and transform your data storage strategy with the best of Microsoft Azure at your fingertips.

