**Data Storage**

Storage needs for today’s systems vary from basic file storage to NoSQL (sharded/partitioned) to relational databases (OLTP, OLAP). We deal with structured, unstructured and semi-structured data, with stream processing Topic/Queue based storage is emerging.

**NoSQL Storage: Cosmos DB**

NoSQL based storage is fast and provides low latency reads and writes. There are many IaaS offerings in Azure that allow use of popular NoSQL implementations including MongoDB, HBase and Cassandra. Cosmos DB is NoSQL storage that provides geo-replication, elastic scale, sub second reads/writes, tunable consistency and no limit on the number of operations per table. You can develop document, key/value, or graph databases with Cosmos DB using a series of popular APIs and programming models like MongoDB, DocumentDB SQL and Azure Tables.

[Learn More](https://docs.microsoft.com/en-us/azure/cosmos-db/introduction)  
[Get Started](https://docs.microsoft.com/en-us/azure/cosmos-db/create-documentdb-dotnet)

**File/Blob Storage: Azure Storage**

File storage is fundamental to any system. Azure Storage is massively scalable, so you can store and process hundreds of terabytes of data to support big data scenarios or small amounts of data for a small business website. Azure Storage also provides the storage foundation for Azure Virtual Machines, a further testament to its robustness. Azure Storage provides auto partitioning and load balancing and access to a global audience by using multiple language API’s.

[Learn More](https://docs.microsoft.com/en-us/azure/storage/storage-introduction)

[Get Started](https://docs.microsoft.com/en-us/azure/storage/storage-create-storage-account)

**Structured Storage: Azure SQL Database**

With Azure, there is no need to install and manage your own Microsoft SQL Server database. SQL Database is a general-purpose relational database that supports structures such as relational data, JSON, spatial, and XML. Azure SQL Database provides SQL data access as a service based on the Microsoft SQL Server database engine.

[Learn More](https://docs.microsoft.com/en-us/azure/sql-database/sql-database-technical-overview)

[Get Started](https://docs.microsoft.com/en-us/azure/sql-database/sql-database-get-started-portal)

**Structured Storage: PostgreSQL**

The Azure Database for PostgreSQL service provides a database as a service offering based on open source database PostgreSQL. This version of the PostgreSQL as a service is built on the community edition of PostgreSQL.

[Learn More](https://docs.microsoft.com/en-us/azure/postgresql/overview)

[Get Started](https://docs.microsoft.com/en-us/azure/postgresql/quickstart-create-server-database-portal)

**Structured Storage: MySQL**

The Azure Database for MySQL is a service offering based on the community edition of MySQL.

[Learn More](https://docs.microsoft.com/en-us/azure/mysql/overview)

[Get Started](https://docs.microsoft.com/en-us/azure/mysql/quickstart-create-mysql-server-database-using-azure-portal)

**OLAP: Azure SQL Data Warehouse**

Azure SQL Data Warehouse is a scale out massive parallel processing platform based on standard SQL (T-SQL). The Azure SQL Data Warehouse solution provides the capability to scale storage and compute independently of one another.

[Learn More](https://docs.microsoft.com/en-us/azure/sql-data-warehouse/sql-data-warehouse-overview-what-is)

[Get Started](https://docs.microsoft.com/en-us/azure/sql-data-warehouse/sql-data-warehouse-get-started-tutorial)

**Redis Cache: Azure Redis Cache**

Based on the open source Redis Cache implementation, Azure Redis Cache provides low latency data access using the Redis key-value data store. Scale data access independent from data storage to provide lightning fast data access for application services.

[Learn More](https://docs.microsoft.com/en-us/azure/redis-cache/)

[Get Started](https://docs.microsoft.com/en-us/azure/redis-cache/cache-dotnet-how-to-use-azure-redis-cache)

**Big Data Storage: Azure Data Lake Store**

Azure Data Lake Store is a multi-purpose storage facility for big data analytics that has unlimited storage capability. This is the equivalent to HDFS with Hadoop. The Azure Data Lake Store provides Petabyte storage with open integration for any processing framework that utilizes open Source HDFS. Azure Data Lake offers additional capabilities not provided by HDFS including: data encryption at rest, role based security, and integration with a full-fledged key vault.

[Learn More](https://docs.microsoft.com/en-us/azure/data-lake-store/data-lake-store-overview)[Get Started](https://docs.microsoft.com/en-us/azure/data-lake-store/data-lake-store-get-started-portal)