

Understanding Azure Storage and Azure Storage explorer

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Abstract— With the increase usage of internet there is high amount of data being generated by each and every industry. Be it a research data or sales data there is gazillion of rows being crated worldwide every day. Many organizations are facing challenges of how to manage the data and how to make it easier to access as the years are passing by. Azure storage is one such highly effective and scalable options to store data on the Cloud Storage. However the selection of the right type of storage is daunting and overwhelming, in this article we are going to look what all things to look for when selecting the right storage option for you.

Keywords—*Azure Storage; Azure Storage Explorer; Scalable Storage options;*

INTRODUCTION TO AZURE STORAGE

Azure Storage explorer is a Microsoft-managed cloud service storage. It is known for its highly scalable, reliable, secure and durable capabilities.

SERVICES PROVIDED BY AZURE STORAGE

There are different services provided by Azure Storage.

- Azure Blobs randomly accessible unstructured data libraries that can accessed from anywhere. This can also be steamtable data like videos or audio. This is commonly used for log files, backups and disaster recovery files.
- Azure Files can be on both the cloud and on-premises and accessed by the cloud. They are fully managed files share which are accessed using Server Message Block (SMB) protocol. Both types of users can easily access files.
- Azure Tables store mainly structured schema-less flexible NoSQL data. These are low cost options
- Storing messages using HTTP or HTTPs can be done using Azure Queues. These can be used in a scenario where you queue up work

and process it asynchronously for example service broker.

- Azure Disks are managed virtual hard disks (VHD) on Azure storage. They are similar to on-premise virtual disk but only virtualized and managed by Azure. If you are planning using SQL Server, or any other I/O intensive application you should only use Ultra or Premium disks.

AZURE STORAGE ACCOUNT

Setting up Azure storage account is fast and easy. Azure storage account contains all these types of storage. The setup has to be done in the Azure Storage Account in your Azure Subscription. This can be done by adding a new Storage account using the Azure portal. After you create your storage account, you will see multiple options such as Queues, Blobs, Tables and Files underneath that account. The very first step is to create the storage account in your Azure Subscription. After you create Azure account you will start seeing azure storage service available for you.

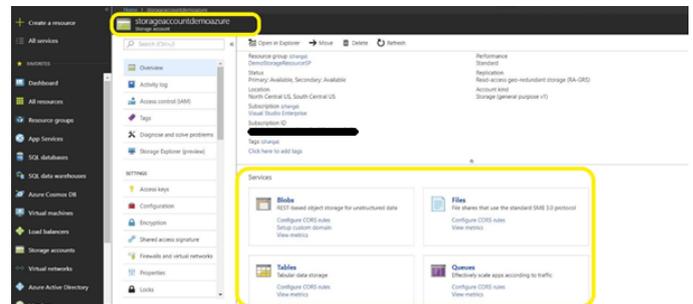


Image 1. Azure Storage account/storage options

TYPES OF DATA REDUNDANCY FOR STORAGE

Azure offers different types of data redundancy for storage.

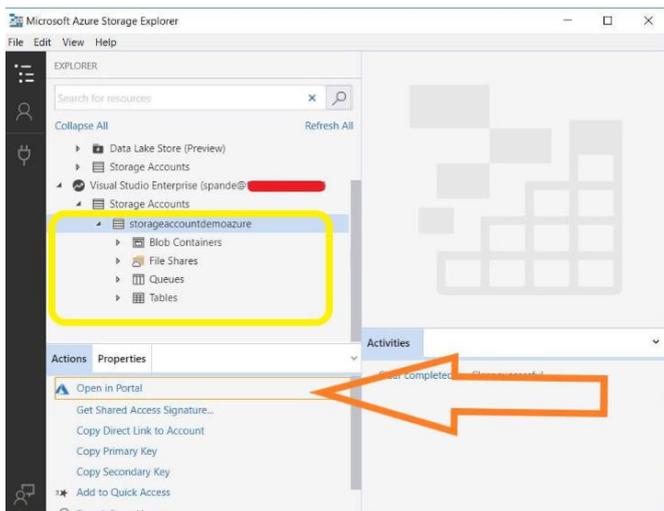
- Locally-redundant storage LRS: It provides three copies of your data and it's maintained within the

same primary data center. The replication happens synchronously and there are multiple low cost options for this.

- Zone-redundant storage ZRS: It's similar to LRS but ZRS is available in multiple zone.
- Geo-redundant storage GRS: It allows you to store the data in multiple geographical location.
- Read Access Geo-redundant storage RA-GRS: This is similar to GRS but it provides read-only access to the data.
- Read Access Geo zone redundant storage RGZRS
- Geo zone redundant storage GZRS

AZURE STORAGE EXPLORER

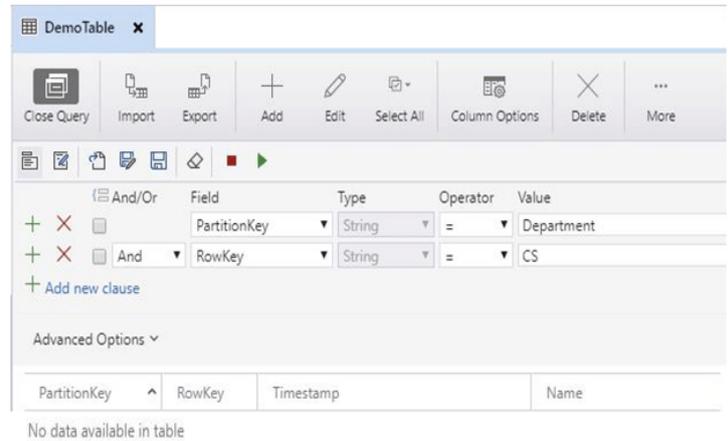
The easiest way to access the Azure Storage account through any device on any platform is Azure Storage Explorer. It provides an easier way to connect to subscription and manipulate the tables, blobs, queues, and files. In addition to these, it helps to connect to and manipulate Azure Cosmos DB Storage and Azure Data Lake Storage as well. Explorer also provides an option to open the storage account in Portal and as you can see all the storage options are visible in Azure Storage Explorer.



OPTIONS AVAILABLE FOR AZURE STORAGE

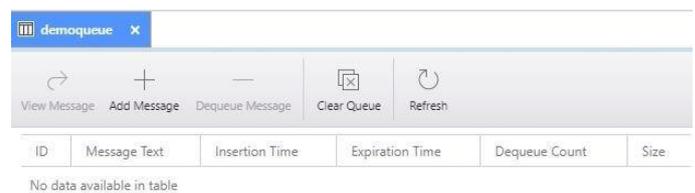
I. Table Storage:

- Query, Add, Edit and Delete Entities
- Import the entities and export the tables and results of the query filters.



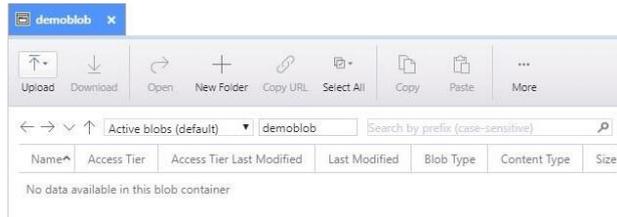
II. Queue Storage:

- Enqueue/Add and Dequeue Message and View the message
- Clear the queue



III. Blob Storage:

- Uploading and Downloading Blobs
- Copy Blobs and folders
- View Blobs
- List Blob Containers
- Delete Blobs



4. <https://docs.microsoft.com/en-us/azure/vs-azure-tools-storage-manage-with-storage-explorer?tabs=windows>

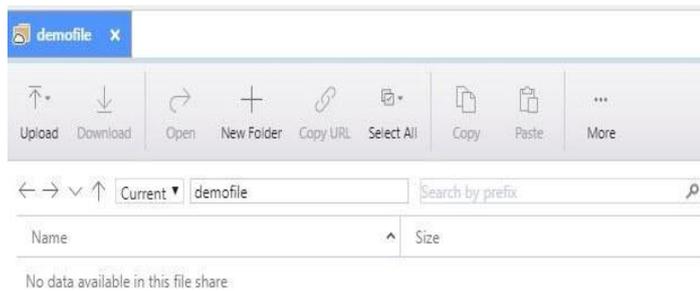
II. File Storage:

- Upload and Download files or directories

Easily view or open the files

Rename and modify the files

Create and Delete Directory



SUMMARY

As discussed in this paper there are different Azure storage options available. It provides different types of storage which are on premise and geographical with data replication options. The additional concept described in this paper about the Azure storage explorer provides a very convenient way to access the Azure Storage account and its associated storage options. The various operations that can be performed on the explorer version can also be performed through the Azure Storage Explorer.

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