**Database Backup and Restore**

**SQL Standalone Backup:**

All backups are stored and managed in a Recovery Services vault. Database Backup is performed on the Instance level and not on the individual DB. Once the SQL Instance are backed up, the DBs inside is now part of the backup setup.

The HPMO team is monitoring all the SQL Instance backup created in the Recovery Services Vault that are being run through the created Core-SQL-Policy. If the backup fails, an internal investigation will be started immediately.

**SQL AG Instances Backup:**

In the Availability Group setup, the unique name changes to *AGName\DBName*. The database must be configured for protection from under the AG. Make sure that all the nodes that are part of the AG instance are registered in the Recovery Services Vault.

You can refer to the below document for more details on this limitation:

[Back up SQL Server always on availability groups - Azure Backup | Microsoft Docs](https://eur01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdocs.microsoft.com%2Fen-us%2Fazure%2Fbackup%2Fbackup-sql-server-on-availability-groups%23moving-a-protected-database-in-or-out-of-an-ag&data=05%7C01%7Cerroe%40vestas.com%7Cfa920e00a8b641b51ded08da84e0f6cb%7Cc07019407b3f4116a59f159078bc3c63%7C0%7C0%7C637968399251805077%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=wSIPjyzVN6q%2ByT6dtQ5rPjKv47ulsf05x4Q9iZaKCkw%3D&reserved=0)

**Note:**

To avoid missing **Log Backup** for some SQL DBs, this validation must be done:

* + There are 3 different types of recovery model: Simple, Full and Bulk logged.
  + If the database is in the simple recovery model, the log backup schedule for that database will be paused and so no log backups will be triggered.
  + If the recovery model of the database changes from Full to Simple, log backups will be paused within 24 hours of the change in the recovery model. Similarly, if the recovery model changes from Simple, implying log backups can now be supported for the database, the log backups schedules will be enabled within 24 hours of the change in recovery model.

In order to enable log backups in Azure SQL Backup, the DB’s recovery model must be changed to Full or Bulk Logged.

* + The recovery models of a DB *cannot* be modified from the Azure portal and must be changed from within the SQL Server The steps of changing the recovery model are quite straightforward as explained in: [Set database recovery model - SQL Server | Microsoft Docs](https://eur01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdocs.microsoft.com%2Fen-us%2Fsql%2Frelational-databases%2Fbackup-restore%2Fview-or-change-the-recovery-model-of-a-database-sql-server%3Fview%3Dsql-server-ver16&data=05%7C01%7Cerroe%40vestas.com%7Cfa920e00a8b641b51ded08da84e0f6cb%7Cc07019407b3f4116a59f159078bc3c63%7C0%7C0%7C637968399251961313%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=eRRgnQy0murrasnXl5zQ1Hi1q1aTJDxYma%2FeHvRF2mA%3D&reserved=0). After changing the recovery model to Full, we need to wait for 24 hours for the log backups to be reflected.

**SQL Restore**

There are 3 options to restore an SQL DB from Azure as per: [Restore SQL Server databases on an Azure VM - Azure Backup | Microsoft Docs](https://eur01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdocs.microsoft.com%2Fen-us%2Fazure%2Fbackup%2Frestore-sql-database-azure-vm&data=05%7C01%7Cerroe%40vestas.com%7Cfa920e00a8b641b51ded08da84e0f6cb%7Cc07019407b3f4116a59f159078bc3c63%7C0%7C0%7C637968399251961313%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=Wcjtr2H%2Fzrh2EVKj%2B7QjrofyYs%2BgGRW221yZIjSF1o8%3D&reserved=0). Below is the summary for them:

* + **Alternate Location**: Restore the database to an alternate location and keep the original source database. This option is helpful if you have concerns about losing the latest data in the source database or if you are copying the database to another path.
  + **Overwrite DB:** Restore the data to the same SQL Server instance as the original source. This option overwrites the original database.

**Note:**

If the selected database belongs to an Always On availability group, SQL Server doesn't allow the database to be overwritten. Only Alternate Location is available. You need to restore such database to a standalone SQL instance and then join it to the AG.

* + **Restore as files:** Instead of restoring as a database, restore the backup files that can be recovered as a database later any machine where the files are present using SQL Server Management Studio. Since all 3 restore options require you to restore to an SQL instance registered to Azure Backup, the “restore as files option” allows you to copy the files to computers not managed by Azure Backup for other uses.