

Managing Time Zones

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Issue summary -

This is a "How to" TSG which walks through on how to manage time zones for SQL DB.

Mitigation steps -

Regardless of the datacenter location chosen, your SQL Azure server is set to the UTC timezone.

The current version of Azure SQL Database does not support changing the timezone.

You need to handle the timezone difference in your code, which will serve the data to the end user/applications.

The timezone can be adjusted by using T-SQL at the database side, or at the application side that retrieves the data/time and then adjusts it, before displaying it to the end user.

New T-SQL programmability features in Azure SQL Database

<https://azure.microsoft.com/en-us/updates/new-t-sql-programmability-features-in-azure-sql-database/>

- [AT TIME ZONE](#) clause
Enables you to convert an *inputdate* to the corresponding *datetimeoffset* value in the target time zone by using time zone conversion rules, for example:

```
SELECT getdate() AT TIME ZONE 'Central European Standard Time';
```

```
SELECT CONVERT(datetime, SYSDATETIMEOFFSET() AT TIME ZONE 'Central Standard Time')
```

Sample function that returns the date as per the time zone you enter on the AT TIME ZONE clause. It takes in consideration the current daylight savings as described on DMV sys.time_zone_info

```
-- DROP FUNCTION [dbo].[GetLocalDate]

CREATE FUNCTION [dbo].GetLocalDate (@date DATETIME)
RETURNS DATETIME
AS
BEGIN
RETURN
CONVERT(datetime, SYSDATETIMEOFFSET() AT TIME ZONE 'Central Brazilian Standard Time') -- modify here the desir
END

-- run the function to convert current system time (UTC) to 'Central Brazilian Standard Time' as defined in th
SELECT dbo.GetLocalDate(GETDATE())

-- Check time zone info
select * from sys.time_zone_info

-- Examples for some time zone convert
SELECT GETDATE() AS UTC_OK,
CONVERT(datetimeoffset, getdate()) AT TIME ZONE 'Central Brazilian Standard Time' as BR_DST_NOk, --UTC-3
CONVERT(datetimeoffset, getdate()) AT TIME ZONE 'Montevideo Standard Time' as Mon_UYT_OK, -- UTC-3: 1 hour beh
CONVERT(datetimeoffset, getdate()) AT TIME ZONE 'Eastern Standard Time' as EST_CDT_OK, -- UTC-4: 2 hours behin
CONVERT(datetimeoffset, getdate()) AT TIME ZONE 'Central Standard Time' as Dallas_CDT_OK, -- UTC-5: 3 hours be
CONVERT(datetimeoffset, getdate()) AT TIME ZONE 'Pacific Standard Time' as Seattle_PDT_OK -- UTC-7: 7 hours be
```

Classification

Root cause path - CRUD/User request/Uncoded

How good have you found this content?

