

Shard Mapping

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The shard map manager is a special database that maintains global mapping information about all shards (databases) in a shard set. The metadata allows an application to connect to the correct database based upon the value of the sharding key. The single-tenant model assigns one database per tenant. This is an effective model for SaaS developers as it simplifies management.

Implementation Steps:

Step 1: Add `ShardMapManagerConnectionString` in `Sql.config` file

Ex: `<add name="ShardMapManagerConnectionString" connectionString="Data Source=system;Initial Catalog=DB; User ID=user; Password=password; enlist=false;" providerName="System.Data.SqlClient"/>`

Step 2: Install the below Nuget-packages

1. CelloSaaS.TenantJobs
2. CelloSaaS.ShardManager

Step 3: In `web.config` file change `Tenant Postprocessor` as below

Replace the existing tenant post processor to following

```
<add name="TenantPostProcessor" assembly="CelloSaaS.TenantJobs"
type="CelloSaaS.TenantJobs.DefaultTenantPostProcessor" />
```

Step 4: Add the below lines in `Unity.config`

In section service container

```
    <alias alias="ITenantCreationEventHandler"
type="CelloSaaS.Integration.ServiceContracts.ITenantCreationEventHandler,CelloSaaS.Integration"/>
    <alias alias="ShardMapTenantCreationEventHandler"
type="CelloSaaS.ShardManagement.TenantCreationEvent.ShardMapTenantCreationEvent,CelloSaaS.ShardM
anagement"/>
    <register type="ITenantCreationEventHandler" mapTo="ShardMapTenantCreationEventHandler"
name="ITenantCreationEventHandler"/>
```

Note: The above changes should be done only in Webapp project.

Create data partition and map the created data partition to the tenant, shared map will work automatically.