

# ElasticJobs Agent Creation Stuck

Last updated by | Charlene Wang | Jul 24, 2022 at 10:45 PM PDT

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## Issue

Customer experiences timeout when creating the elastic job agent and we can see timeout in the backend.

## Investigation/Analysis

1. Find actual workflow traces

```
MonManagement
| where PreciseTimeStamp > datetime(2021-11-15 9:40:01.2896551)
| where request_id == "issue_request_id"
| limit 1000
```

2. Check from backend to see the state of JobAccountStateMachine and FabricServiceStateMachine

```
MonManagement
| where TIMESTAMP > datetime(<StartTime>) and TIMESTAMP < datetime(<EndTime>)
| where state_machine_type in ("JobAccountStateMachine","FabricServiceStateMachine")
| where keys contains "<>"
| order by originalEventTimestamp asc
| project originalEventTimestamp, state, fsm_event, caller_state_machine_type, action, old_state, new_sta
```



You may see:

**JobAccountStateMachine** stuck in **WaitingForCreatingJobsSqlInstance** state  
**FabricServiceStateMachine** stuck in **Resolving** state

This means that the Job agent instance is failing to startup while trying to initialize the Job database

### 3. Check job agent database

```
MonJobs  
| where PreciseTimeStamp >ago(3d)  
| where ClusterName == "clusterName"  
| where AppName == "appName"  
| limit 1000
```

If you see exceptions similar to "Initializing database encountered SqlException", this is telling us that the Jobs instance is having issues setting up the Jobs database with its required schema.

You might also see more detailed SqlExceptions such as below:

"Exception occurred when trying to open service instance for Uri /Jobs/ja-dcb55b2fb/SQL.JobAccount/ja-dcb55b2fb: System.Data.SqlClient.SqlException (0x80131904): The type 'jobs\_internal.id\_list' already exists, or you do not have permission to create it. If you see these kinds of errors, this is likely because customer tampered with the Jobs schema (jobs / jobs\_internal) and now the Job agent can't communicate or setup the Job database anymore."

### Root cause

Customer tampered with the Jobs schema ([jobs] / [jobs\_internal]) and now the Job agent can't communicate or setup the Job database anymore.

### Mitigation

We need customer to cleanup their jobs metadata, delete their agent from the Azure Portal, and then re-create their agent.

If the jobs metadata was cleaned up successfully, the re-provisioning of the agent should cause the agent to start up again successfully and run healthily.

To cleanup the jobs metadata, see [JOBSSOP0014 Cleanup Jobs Metadata](#) 

Below is a script that you can hand off to customer in case they tampered with their jobs or jobs\_internal metadata and want to do a clean wipe of their existing metadata.

```

declare @n char(1)
set @n = char(10)

declare @triggers nvarchar(max)
declare @procedures nvarchar(max)
declare @constraints nvarchar(max)
declare @FKs nvarchar(max)
declare @views nvarchar(max)
declare @tables nvarchar(max)
declare @udt nvarchar(max)

--procedures
select @procedures = isnull( @procedures + @n, '' ) + 'drop procedure [' + schema_name(schema_id) + '].[' + na
from sys.procedures
where schema_name(schema_id) = 'jobs' or schema_name(schema_id) = 'jobs_internal'

--foreign keys
select @FKs = isnull( @FKs + @n, '' ) + 'alter table [' + schema_name(schema_id) + '].[' + object_name( parent
from sys.foreign_keys
where schema_name(schema_id) = 'jobs' or schema_name(schema_id) = 'jobs_internal'

--views
select @views = isnull( @views + @n, '' ) + 'drop view [' + schema_name(schema_id) + '].[' + name + ']'
from sys.views
where schema_name(schema_id) = 'jobs' or schema_name(schema_id) = 'jobs_internal'

--tables
select @tables = isnull( @tables + @n, '' ) + 'drop table [' + schema_name(schema_id) + '].[' + name + ']'
from sys.tables
where schema_name(schema_id) = 'jobs_internal'

--user defined types
select @udt = isnull( @udt + @n, '' ) + 'drop type [' + schema_name(schema_id) + '].[' + name + ']'
from sys.types
where is_user_defined = 1
and schema_name(schema_id) = 'jobs_internal'
order by system_type_id desc

declare @functions nvarchar(max)

--functions
select @functions = isnull( @functions + @n, '' ) + 'drop function [' + schema_name(schema_id) + '].[' + name
from sys.objects
where type in ( 'FN', 'IF', 'TF' )
and schema_name(schema_id) = 'jobs_internal'

declare @stmt nvarchar(max)

set @stmt = isnull(@stmt + @n, '') + 'DROP SCHEMA IF EXISTS [jobs]'
set @stmt = isnull(@stmt + @n, '') + 'DROP SCHEMA IF EXISTS [jobs_internal]'

set @stmt = isnull(@stmt + @n, '') + 'DROP USER IF EXISTS [##MS_JobAccount##]'
set @stmt = isnull(@stmt + @n, '') + 'DROP USER IF EXISTS [##MS_JobsResourceManager##]'

set @stmt = isnull(@stmt + @n, '') + 'DROP ROLE IF EXISTS [jobs_admin]'
set @stmt = isnull(@stmt + @n, '') + 'DROP ROLE IF EXISTS [jobs_reader]'
set @stmt = isnull(@stmt + @n, '') + 'DROP ROLE IF EXISTS [jobs_resource_manager]'

print @procedures
print @FKs
print @views
print @tables
print @udt
print 'GO'
print @functions
print 'GO'
print @stmt

```

```
exec sp_executesql @procedures
exec sp_executesql @FKs
exec sp_executesql @views
exec sp_executesql @tables
exec sp_executesql @udt
exec sp_executesql @functions
exec sp_executesql @stmt
print 'clean up finished'
```

## External Links

[Troubleshooting Common issues with Elastic Jobs](#) 

## Internal Links

[272513605](#) 

Repair item for this is being tracked here: [1003446](#) 

## Root Cause Classification

Cases resolved by this TSG should be coded to the following root cause: CRUD/Service issue/Elastic jobs

## How good have you found this content?

