How to investigate login failures

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Note that failed logins can be either client side issue (bad machine/low nw io/client driver) or server side.

If this TSG doesn't help you verify if you can connect to instance from one of the nodes in ring, PG can help JIT to the VNET and test the connection

This error means that 10%+ of login attempts failed in 2+ minutes in the last 5 minutes with at least 10 failed logins per minute.

Start by checking the associated **Health Properties** related to this IcM. Here you can see information such as:

- **NodeName**
- **ApplicationName**
- **LogicalServerName**
- **DatabaseName**
- **ClusterName**

Additionally, **Description** field contains all of the login error codes that were detected in format **[error, state]**.

Note that it is entirely possible that this is a **false flag** which is actually a login error due to the user's mistake.

First you can check if your **[error, state]** is located in the table below, which contains all **system errors** that we have tracked so far.

If the login fails on Gateway.PDC use this SOP: [Throubleshoot Gateway.PDC login failures](#)

If the login fails on Worker.CL use this SOP:

This query takes all logins which occurred on instance. Check **error, state** columns.

```
// If server name says something like 'localhost' that is connection coming from SQLAgent (application_name
should also say something like SQLAgent)
// Otherwise it's login from GW in case of proxy or client in case of redirect
//
let startTime = now(-1d);
let endTime = now();
```

```
let serverName = "test";
MonLogin
| where TIMESTAMP between (startTime .. endTime)
| where AppTypeName == 'Worker.CL'
| where logical_server_name == serverName
| where event == 'process_login_finish'
```

Some known **errors** (expand with new findings):

Application	[error, state]	Cause
Worker.CL	[18456,40612,40613, 983/ 162]	Replicated master not ready, this often occurred when failover happe and master database gets seeded faster than user DBs and they end located on different nodes (instance is in teardown), which makes connection impossible. • To check instance availability, check [Error 40613: Database x on s y is not currently available](#) • In case of long recovery/teardown use [Identify long running reconfiguration](#) • In case its neither of these transfer it to Availability queue • In case its transient/mitigated and not related to previous TSGs transfer it to Networking queue.
Worker.CL	[17188/ 1]	Server is shutting down.
Worker.CL	[17830/ *]	This error indicates that login attempt failed because of some timeou could be perf issue on Gateway or Instance. • To check GW perf use [Section: Check if Gateway.PDC under CPU pressure](#) . ○ If it's GW issue, narrow it down and see which replica has iss Try restarting replica to see if condition improves. • Check total_time_ms column to see how long did login last. If it t more than 5000ms then check CPU usage from ASC Performanc If there is CPU exsanguination consult perf/instance team.
Worker.CL	[18456/ 38, 46]	Previously we've seen this coming with high memory usage. Consult team about this issue. Perf incidents regarding this: https://portal.microsofticm.com/imp/v3/incidents/details/103606626 https://portal.microsofticm.com/imp/v3/incidents/details/106764834
Worker.CL	[33155 / *]	AAD issue where auth token was not either grabbed from client side send to instance by GW. See this [IsFedAuthLogin - Troubleshoot erro 33155](#) for further instructions.
Worker.CL	If non above	If you don't see error/state in this table than search Onenote and see can find anything that can be helpful.

More Information

Internal Reference

Copied from [TSGCL0137: Massive login failures detected](#) so CSS can access this information

To search error go here: [http://sqlsrc/ds_main/xref/Sql/Ntdbms/include/sqlerrorcodes.h](#)

To search state look here: [http://sqlsrc/ds_main/xref/Sql/Ntdbms/include/protutil.h](#)

How good have you found this content?