# Checklist – Slow Query Performance – SQL Server

When a customer complains of poor performance for a specific query, there could be a number of causes.

* Missing indexes
* Out of date statistics
* Improper database configuration
* Poorly constructed query

In order to properly diagnose and repair the problem, you should collect the following information and attach it to the JIRA task:

1. Original DQL query
   * This can be collected from a DFC trace
2. Translated SQL Query
   * This can be obtained through DA in the DQL Tester, SQL\_TRACE or GET\_LAST\_SQL

SQL\_TRACE utility (to session logs):

API> trace,c,1,,SQL\_TRACE  
API> ?,c,<command>  
API> trace,c,0,,SQL\_TRACE

GET\_LAST\_SQL (to screen)

API> ?,c,<command>  
API> ?,c,EXECUTE GET\_LAST\_SQL

1. Query execution plan
   * If you have access to the database, you can get this by logging in to SQL Server Management Studio, and executing the query with the “Actual Execution Plan” button enabled. The execution plan can be exported as an XML file to attach to the case.
   * You can also generate the plan by using “SET SHOWPLAN\_ALL ON” before the statement is executed.
   * If you don’t have access, the DBA can provide the execution plan for you.
2. Index list and table information
   * Run “sp\_helpindex2.sql” in the repository database to generate a list of all of the indexes.



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In addition, please provide the following information:

Timing information:

* When did the problem start?
* Has anything changed recently, such as a software upgrade or batch load?
* Does the problem happen to all users or only some users?
* Does the problem occur at certain times or all of the time?

Environment Information:

* Latest “State of the Docbase” report
* Environment configuration details (O/S, software versions, number of CS and app servers, and load balancer information.)
* Network information such as ping times (if users are remote)
* Can the issue be reproduced in their test environment?
* Can the issue be reproduced in an EMC environment?