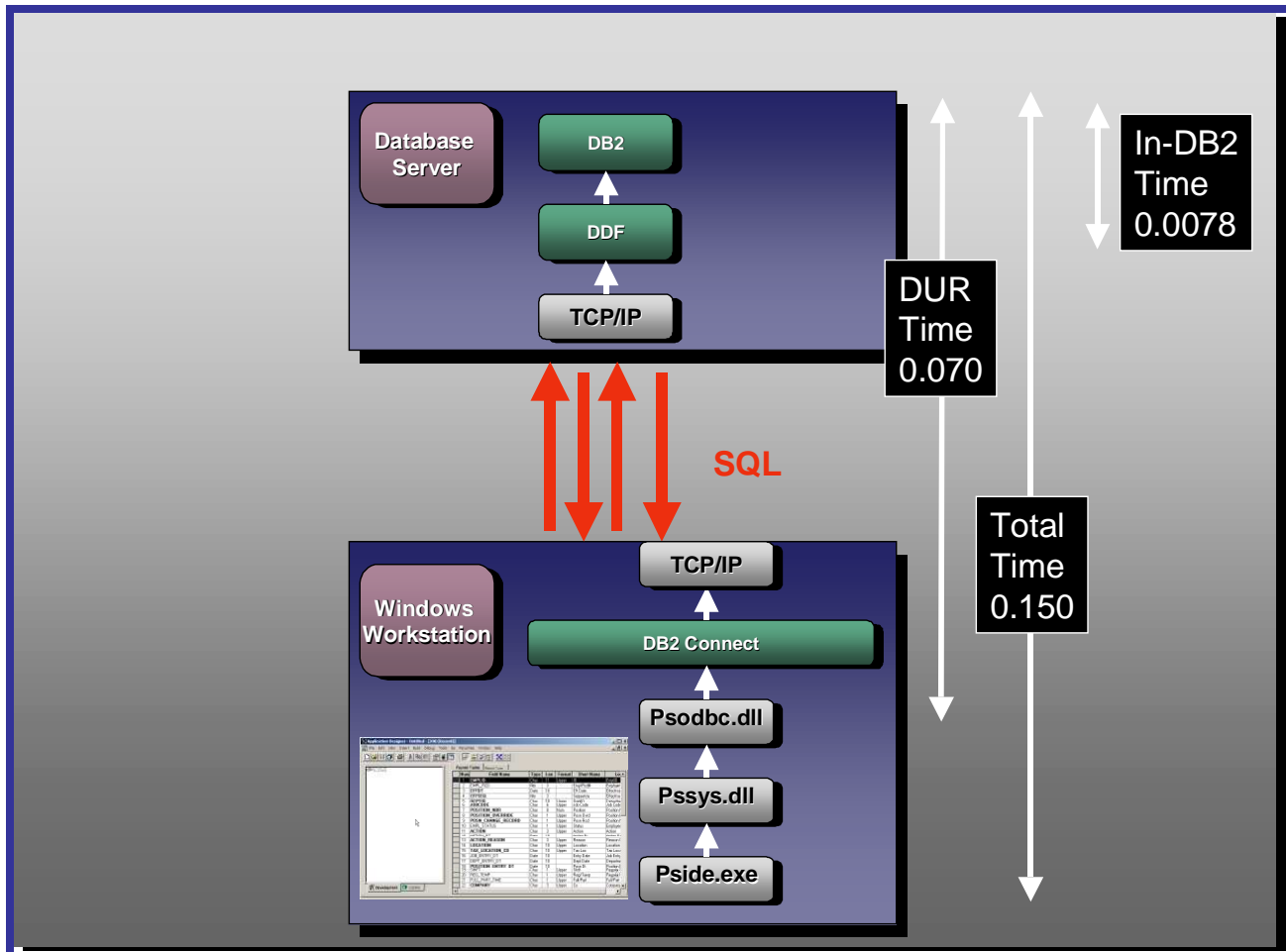


3.4 Online Trace Summary

Putting all this information together, we can obtain the following.

3.4.1 2-tier overview

So 80ms (or >50%) of the response time is spent on the client.



Why so much time on the client?

All PeopleTools code (in pside.exe) that processes the data and builds the screen runs there. When an SQL call needs to be made, pssys.dll is the module that is invoked. But that builds SQL conforming to the Centura SQLExec standard, and is the SQL you see in the PeopleTools trace i.e. COM, EXE etc. DB2 Connect doesn't understand those calls, so there is a conversion routine, called psodbc.dll, which converts SQLEXECs to ODBC function calls. This mapping is described in the [DB2 Connect CLI Trace](#).

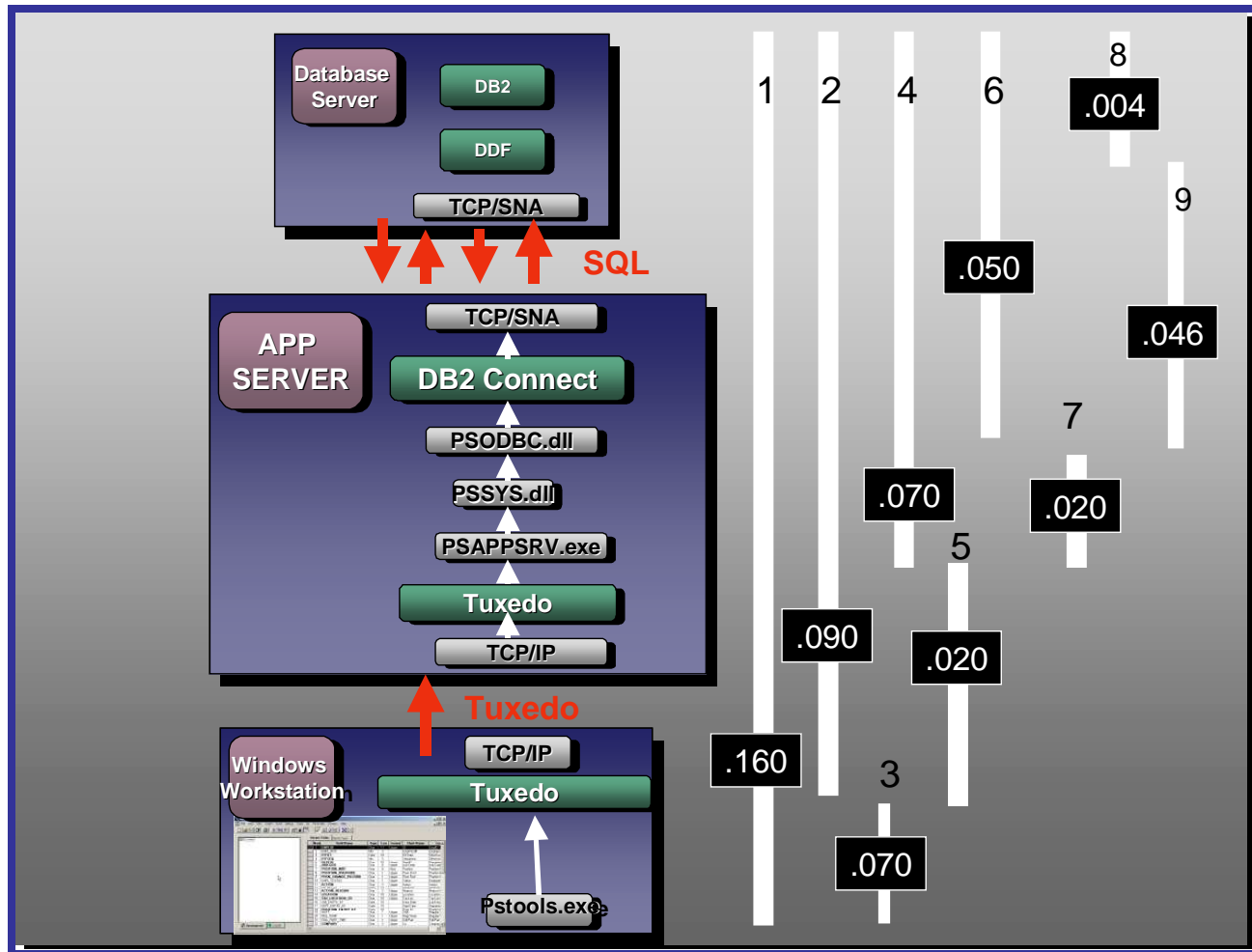
Then DB2 Connect can process the call and send the message up through TCP/IP to the server.

The simpler the SQL in a transaction, then the higher the percentage of time spent on the client tends to be. The more data the SQL retrieves i.e. the more fetches, then the same is true, since the client has to process each row. The more complex the SQL i.e. the

more time spent in DB2, then the percentage of time spent on the client tends to be less. In any case, in a 2-tier environment, it tends to be in 50-75% range.

Doubling the horsepower of your client machines will reduce your response time in the neighborhood of 30-40% in a 2-tier environment.

3.4.2 3-tier Overview



- 1 and 2 obtained from 3-tier Tuxedo client trace
- 3 = 1 - 2
- 4 and 6 obtained from 3-tier Application Server SQL trace (4 n/a in PSE7.x)
- 5 = 2 - 4
- 7 = 4 - 6
- 8 obtained from DB2PM (or other DB2 tracing tool)
- 9 = 6-8

For this transaction, at least 90ms (3 + 7) of the 160ms response time is spent executing PeopleCode and other dll's on the client and server, split between the client and server. Usually it's about 50-50, but this particular transaction indicates more time spent on the client. Regardless, increasing the horsepower of the client is still going to help, but not to such a great extent as in a 2-tier environment, since a percentage of the work has shifted to the Application Server.

Should you need to do this kind of breakdown yourself, don't do it on the first time into a panel group after login, even if caching has already fully taken place. There is overhead on first entry associated with loading PeopleSoft disk cache files into memory (both on the Application Server, if no one has been in ahead of you, and on the client), which can extend the response time 50-100%. Discard the first iteration and base your timings on the second or subsequent iterations