

Table 5-5 Two-way classic IRWW that uses RELEASE(COMMIT) ITR and CPU time

Classic IRWW measurement	Average ITR (commits/sec) per member	Total CPU/commit (microseconds) per member	Db2 12 vs. Db2 11 CPU/commit (delta %)
Baseline: Db2 11 NFM	3584	653	N/A
Db2 V12R1M100 (FTB Auto) No rebind	3635	629	-3.7
Db2 V12R1M100 (FTB Auto) After rebind	3548	621	-4.8
Db2 V12R1M500 (FTB Disabled) No additional rebind	3672	622	-4.7
Db2 V12R1M500 (FTB Auto) No additional rebind	3725	607	-7.0

When running the classic IRWW workload in a two-way data sharing environment, the effects of the data sharing overhead that is triggered by introducing inter-Db2 read/write interest can be observed. When comparing the measurement results of the same migration step between the one-way (see Table 5-2 on page 160) and two-way (see Table 5-5) data sharing tests, the data sharing overhead is evident and reflected in an increase in Total CPU/Commit time and reduction of the ITR per Db2 member.

However, the benefits of the fast index traversal feature are not diminished when comparing the two-way to the one-way data sharing group measurements.

## 5.3 Distributed IRWW workload performance measurements

The distributed IRWW workload is the main workload that is used to evaluate Db2 12's performance capabilities in distributed environments. The workload includes the following transactions:

- ▶ SQLCL: CLI (dynamic) that uses Db2 Connect
- ▶ JDBC: JDBC (dynamic) that uses JCC T4 driver
- ▶ SQLJ: Static Java that uses JCC T4 driver
- ▶ SPCB: Stored procedures in COBOL (static) that uses Db2 Connect
- ▶ SPSJ: Stored procedures in SQLJ (static) that uses JCC T4 driver
- ▶ SPNS: Stored procedures in native SQL (static) that uses JCC T4 driver
- ▶ SP500: Total of 500 stored procedures in native SQL (static) that uses JCC T4 driver

Each of these transactions issues SQL statements to simulate the same set of business functions, as described in A.3, "IRWW distributed workload" on page 379.

The test environment that was used to run these workloads used the following configuration:

- ▶ A z13 z/OS LPAR with 3 dedicated general CPs and 32 GB of memory that used z/OS 2.2.
- ▶ A Linux on System z on a z13 LPAR with three general CPs with Db2 Connect and Db2 for Linux, UNIX, and Windows 10.5 (s130428).
- ▶ JCC driver 3.66.33, JDK 1.7.0, IBM J9 VM (build 2.6, JRE 1.7.0 Linux s390x-64 20121024\_126071).