

CLAIMS

1. A computer program product for implementing a coherence protocol, the computer program product comprising:
 - a computer readable storage medium having program instructions embodied therewith, wherein the computer readable storage medium is not a signal, the program instructions readable by a processing circuit to cause the processing circuit to perform a method comprising:
 - sending a request for data to a remote processor;
 - receiving, by a processor, a response from the remote processor, the response including a transaction status of a remote transaction on the remote processor, wherein the transaction status received in the response from the remote processor includes: a type of interference at the remote processor caused by a requesting transaction executing on the processor, a number of clock cycles of work having been performed by the remote transaction prior to being aborted on the remote processor, and an indication of whether a rollback was caused on the remote processor by sending the request to the remote processor; and
 - adding, by the processor, the transaction status of the remote transaction on the remote processor in a local transaction interference tracking table;
 - wherein the processor is a separate processor from the remote processor.
2. The computer program product of claim 1, wherein the transaction status of the remote transaction is added to a transaction diagnostic block.
3. The computer program product of claim 1, wherein the remote transaction executes on the remote processor and aborts execution based on sending the request for data to the remote processor.
4. The computer program product of claim 1, wherein the request is by a requesting transaction executing on the processor sending the request.
5. The computer program product of claim 1, wherein based on the request by the requesting transaction causing the remote transaction to abort on the remote processor, the processor adds the transaction status of the remote transaction to the local transaction interference tracking table and increments a count of transaction aborts having occurred for the remote transaction.

6. The computer program product of claim 1, wherein the transaction status of the remote transaction, received by the processor in the response from the remote processor, indicates that the remote transaction had to abort based on receiving the request from the processor.
7. The computer program product of claim 1, wherein the local transaction interference tracking table maintains a number of transactions that have been interfered with and aborted by the requesting transaction executing on the processor.
8. The computer program product of claim 1, wherein the local transaction interference tracking table maintains information describing remote transactions on remote processors; and wherein the information describing the remote transactions on the remote processors further includes: an identification of each of the remote transactions that were aborted by the requesting transaction, an identification of each of the remote processors on which the interference occurred, and an address of each of the remote transactions having been aborted.
9. A computer system for implementing a coherence protocol, the system comprising:
 - a memory; and
 - a processor, communicatively coupled to said memory, the computer system configured to perform a method comprising:
 - sending a request for data to a remote processor;
 - receiving, by the processor, a response from the remote processor, the response including a transaction status of a remote transaction on the remote processor; wherein the transaction status received in the response from the remote processor includes: a type of interference at the remote processor caused by a requesting transaction executing on the processor, a number of clock cycles of work having been performed by the remote transaction prior to being aborted on the remote processor, and an indication of whether a rollback was caused on the remote processor by sending the request to the remote processor; and
 - adding, by the processor, the transaction status of the remote transaction on the remote processor in a local transaction interference tracking table;
 - wherein the processor is a separate processor from the remote processor.
10. The system of claim 9, wherein the transaction status of the remote transaction is added to a transaction diagnostic block.

11. The system of claim 9, wherein the remote transaction executes on the remote processor and aborts execution based on the sending the request for data to the remote processor.
12. The system of claim 9, wherein the request is by a requesting transaction executing on the processor sending the request.
13. The system of claim 9, wherein based on the request by the requesting transaction causing the remote transaction to abort on the remote processor, the processor adds the transaction status of the remote transaction to the local transaction interference tracking table and increments a count of transaction aborts having occurred for the remote transaction.
14. The system of claim 9, wherein the transaction status of the remote transaction, received by the processor in the response from the remote processor, indicates that the remote transaction had to abort based on receiving the request from the processor.
15. The system of claim 9, wherein the local transaction interference tracking table maintains a number of transactions that have been interfered with and aborted by the requesting transaction executing on the processor.
16. A computer implemented method for implementing a coherence protocol, the method comprising:
 - sending a request for data to a remote processor;
 - receiving, by a processor, a response from the remote processor, the response including a transaction status of a remote transaction on the remote processor, wherein the transaction status received in the response from the remote processor includes: a type of interference at the remote processor caused by a requesting transaction executing on the processor, a number of clock cycles of work having been performed by the remote transaction prior to being aborted on the remote processor, and an indication of whether a rollback was caused on the remote processor by sending the request to the remote processor; and
 - adding, by the processor, the transaction status of the remote transaction on the remote processor in a local transaction interference tracking table;
 - wherein the processor is a separate processor from the remote processor.

17. The method of claim 16, wherein the transaction status of the remote transaction is added to a transaction diagnostic block.
18. The method of claim 16, wherein the remote transaction executes on the remote processor and aborts execution based on the sending the request for data to the remote processor.
19. The method of claim 16, wherein the request is by a requesting transaction executing on the processor sending the request.
20. The method of claim 16, wherein based on the request by the requesting transaction causing the remote transaction to abort on the remote processor, the processor adds the transaction status of the remote transaction to the local transaction interference tracking table and increments a count of transaction aborts having occurred for the remote transaction.