For more information, see “**Coupling Thin Interrupts**” on page 112. The supported operating systems are listed in Table 7-5 on page 251.

Asynchronous CF Duplexing for lock structures

Asynchronous CF Duplexing enhancement is a general-purpose interface for any CF Lock structure user. It enables secondary structure updates to be performed asynchronously with respect to primary updates. Initially delivered with CFCC 21 on z13 as an enhanced continuous availability solution, it offers performance advantages for duplexing lock structures and avoids the need for synchronous communication delays during the processing of every duplexed update operation.

Asynchronous CF Duplexing for lock structures requires the following software support:

- z/OS V2R3, z/OS V2.2 SPE with PTFs for APAR OA47796 and OA49148
- z/VM V7R1, z/VM V6.4 with PTFs for z/OS exploitation of guest coupling environment
- Db2 V12 with PTFs for APAR PI66689
- IRLM V2.3 with PTFs for APAR PI68378

The supported operating systems are listed in Table 7-5 on page 251.

Asynchronous cross-invalidate (XI) for CF cache structures

Asynchronous XI for CF cache structures enables improved efficiency in CF data sharing by adopting a more transactional behavior for cross-invalidate (XI) processing. which is used to maintain coherency and consistency of data managers’ local buffer pools across the sysplex.

Instead of performing XI signals synchronously on every cache update request that causes them, data managers can “opt in” for the CF to perform these XIs asynchronously (and then sync them up with the CF at or before transaction completion). Data integrity is maintained if all XI signals complete by the time transaction locks are released.

The feature enables faster completion of cache update CF requests, especially with cross-site distance involved and provides improved cache structure service times and coupling efficiency. It requires explicit data manager exploitation/participation, which is not transparent to the data manager. No SMF data changes were made for CF monitoring and reporting.

The following requirements must be met:

- CFCC Level 23 support, plus
- z/OS PTFs on every exploiting system in the sysplex:
- Fixes for APAR OA54688 - Exploitation support z/OS 2.2 and 2.3
- Fixes for APAR OA54985 - Toleration support for z/OS 1.13 and 2.1
- Db2 V12 with PTFs for exploitation

z/VM Dynamic I/O support for InfiniBand and ICA CHPIDs

z/VM dynamic I/O configuration support allows you to add, delete, and modify the definitions of channel paths, control units, and I/O devices to the server and z/VM without shutting down the system.

This function refers exclusively to the z/VM dynamic I/O support of InfiniBand and ICA coupling links. Support is available for the CIB and CS5 CHPID type in the z/VM dynamic commands, including the **`change channel path`** dynamic I/O command.

Specifying and changing the system name when entering and leaving configuration mode are also supported. z/VM does not use InfiniBand or ICA, and does not support the use of InfiniBand or ICA coupling links by guests. The supported operating systems are listed in Table 7-5 on page 251.