- Step 3

  When the background copy completes, the MM/GM relationship changes from the `InconsistentCopying` state to the `ConsistentSynchronized` state.

- Step 4:

  a. When a MM/GM relationship is stopped in the `ConsistentSynchronized` state, the MM/GM relationship enters the `Idling` state when you specify the **`-access`** option, which enables write I/O on the auxiliary volume.

  b. When an MM/GM relationship is stopped in the `ConsistentSynchronized` state without an **`-access`** parameter, the auxiliary volumes remain read-only and the state of the relationship changes to `ConsistentStopped`.

  c. To enable write I/O on the auxiliary volume, when the MM/GM relationship is in the `ConsistentStopped` state, issue the **`svctask stoprcrelationship`** command, which specifies the **`-access`** option, and the MM/GM relationship enters the `Idling` state.

- Step 5:

  a. When an MM/GM relationship is started from the `Idling` state, you must specify the **`-primary`** argument to set the copy direction. If no write I/O was performed (to the master or auxiliary volume) while in the `Idling` state, the MM/GM relationship enters the `ConsistentSynchronized` state.

  b. If write I/O was performed to the master or auxiliary volume, the **`-force`** option must be specified and the MM/GM relationship then enters the `InconsistentCopying` state while the background copy is started. The background process copies only the data that changed on the primary volume while the relationship was stopped.

Stop on Error

When a MM/GM relationship is stopped (intentionally, or because of an error), the state changes. For example, the MM/GM relationships in the `ConsistentSynchronized` state enter the `ConsistentStopped` state, and the MM/GM relationships in the `InconsistentCopying` state enter the `InconsistentStopped` state.

If the connection is broken between the two systems that are in a partnership, all (intercluster) MM/GM relationships enter a `Disconnected` state. For more information, see “Connected versus disconnected” on page 562.

Common states: Stand-alone relationships and Consistency Groups share a common configuration and state model. All MM/GM relationships in a Consistency Group have the same state as the Consistency Group.

State overview

The following sections provide an overview of the various MM/GM states.

Connected versus disconnected

Under certain error scenarios (for example, a power failure at one site that causes one complete system to disappear), communications between two systems in an MM/GM relationship can be lost. Alternatively, the fabric connection between the two systems might fail, which leaves the two systems that are running but cannot communicate with each other.

When the two systems can communicate, the systems and the relationships that spans them are described as *connected*. When they cannot communicate, the systems and the relationships spanning them are described as *disconnected*.