If you need to change the communication protocol version of a group so that members at earlier releases can join, use the `group_replication_set_communication_protocol()` function to specify the MySQL Server version of the oldest member that you want to allow. This makes the group fall back to a compatible communication protocol version if possible. The `GROUP_REPLICATION_ADMIN` privilege is required to use this function, and all existing group members must be online when you issue the statement, with no loss of majority. For example:

```
SELECT group_replication_set_communication_protocol("5.7.25");
```

If you upgrade all the members of a replication group to a new MySQL Server release, the group's communication protocol version is not automatically upgraded to match. If you no longer need to support members at earlier releases, you can use the `group_replication_set_communication_protocol()` function to set the communication protocol version to the new MySQL Server version to which you have upgraded the members. For example:

```
SELECT group_replication_set_communication_protocol("8.0.16");
```

The `group_replication_set_communication_protocol()` function is implemented as a group action, so it is executed at the same time on all members of the group. The group action starts buffering messages and waits for delivery of any outgoing messages that were already in progress to complete, then changes the communication protocol version and sends the buffered messages. If a member attempts to join the group at any time after you change the communication protocol version, the group members announce the new protocol version.

MySQL InnoDB cluster automatically and transparently manages the communication protocol versions of its members, whenever the cluster topology is changed using AdminAPI operations. An InnoDB cluster always uses the most recent communication protocol version that is supported by all the instances that are currently part of the cluster or joining it. For details, see InnoDB Cluster and Group Replication Protocol.

18.5.2 Transaction Consistency Guarantees

One of the major implications of a distributed system such as Group Replication is the consistency guarantees that it provides as a group. In other words, the consistency of the global synchronization of transactions distributed across the members of the group. This section describes how Group Replication handles consistency guarantees depending on the events that occur in a group, and how to best configure your group's consistency guarantees.

18.5.2.1 Understanding Transaction Consistency Guarantees

In terms of distributed consistency guarantees, either in normal or failure repair operations, Group Replication has always been an eventual consistency system. This means that as soon as the incoming traffic slows down or stops, all group members have the same data content. The events that relate to the consistency of a system can be split into control operations, either manual or automatically triggered by failures; and data flow operations.

For Group Replication, the control operations that can be evaluated in terms of consistency are:

- a member joining or leaving, which is covered by Group Replication's Section 18.5.3, “Distributed Recovery” and write protection.
- network failures, which are covered by the fencing modes.
- in single-primary groups, primary failover, which can also be an operation triggered by `group_replication_set_as_primary()`.

Consistency Guarantees and Primary Failover