

Replication Status (Enforce)

The Replication Status screen within the OPSCOM Enforce App displays the synchronization state of all local database tables against the central server. Its primary purpose is to help identify connectivity issues and allow users to manually manage data synchronization when necessary. This article is intended for OPSCOM administrators and field enforcement staff.

Setup and Configuration

The Replication Status feature is built natively into the application and does not require backend configuration.

Admin Side: Staff must have the OPSCOM Enforce app installed on their handheld device and be logged in to view the local database tables.

Using this Feature

Enforcement personnel can use this feature to check the health of their connection and manually force data pushes if records are failing to upload automatically.

Viewing System Status

1. **Tap** the **Replication Status** option from the main application menu.
2. Review the list of database tables on the **Record Counts and Data Table Tools** screen.

Visual Cues and Status Indicators

The following icons are used to clearly indicate the synchronization status of each individual table:

- **Green Checkmark:** Table data is successfully synchronized with the server.
- **Red X:** Table data is NOT synchronized with the server.
- **Blue Exclamation Point:** There is currently no table data that needs to be synchronized between the handheld and the server.

During normal use (i.e., when actively issuing violations), it is completely expected that tables like VehicleTransfer and ViolationsTransfer may temporarily display a Red X. This simply indicates that new data has been captured on your local device and is waiting in the queue to be synced to the server.

Replication Actions (Table-Specific)

You can perform targeted actions on individual tables if they are stuck or experiencing issues.

1. **Tap and Hold** an individual table to open a pop-up message with additional options.
2. **Tap** one of the following actions:
 - **Push table data to the server:** This will attempt to manually upload the local device's table data to the server. This is generally safe to do, as nothing is overwritten or removed.

- **Rebuild and retrieve table data:** This option will permanently delete the local table data and retrieve the newest available data from the server.
- **Delete local table data:** This will permanently delete the local table data but has no effect on the server.
- **Email debug details to Tomahawk:** This will send an email log file to OPSCOM support containing helpful information for troubleshooting issues.

Never select the rebuild or delete functions unless explicitly instructed by OPSCOM Support. Doing so can result in the permanent loss of violations or vehicle data that has not yet been synchronized to the server.

Replication Options (System-Wide)

There are additional system-wide options available to manage the entire database at once.

1. **Tap** the **Options** icon (menu button) located in the top right-hand corner of the screen.
2. **Tap** one of the following actions:
 - **Rebuild database:** This will delete ALL local table data across the entire device.
 - **Synchronize all:** The device will attempt to safely synchronize ALL table data with the server.
 - **Send config to Tomahawk:** This will send a comprehensive email log file to support for debugging.

- **Download new config:** The device will re-download all relevant system settings (e.g., organization details, device name, ticket footer) on the next startup.
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Best Practices and Considerations

- **Rely on standard login for synchronization: If your unit is working correctly, none of these manual options should be necessary.** We highly recommend simply logging out and logging back into the application as needed, which acts as a safe, natural trigger for proper synchronization.
 - **Communicate before sending logs: If you need to use the Email debug details option, please notify the OPSCOM support team first if possible,** or only select it when actively requested by a support technician.
 - **Verify synchronization before any rebuilds: If you are instructed to rebuild your database, always ensure you have attempted to push table data to the server first.** Verify that all tables marked with a **Red X** are cleared to prevent catastrophic data loss.
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