### 11 - Multi-Shop Sync Behavior

\*\*11.1 Independent Shop-to-HQ Sync\*\*

- Each shop syncs individually to HQ.

- Sync failures in one shop do not affect others.

\*\*11.2 Partial Shop Outage Handling\*\*

- Shop can operate offline using local cache.

- HQ flags the shop as "out-of-sync" until data is pushed.

- Alert HQ dashboard after 30 minutes of no updates.

\*\*11.3 Shop Sync Queuing\*\*

- Each shop has its own sync queue.

- HQ processes shop queues in round-robin or priority mode.

- Prevents overload from large-volume shops.

\*\*11.4 Cross-Shop Stock Visibility\*\*

- HQ maintains latest stock snapshot per shop.

- Shops can request view access (read-only) for stock in other shops.

- Controlled via role permission and rate-limited API.

\*\*11.5 Activity Throttling per Shop\*\*

- Heavy sync activities (e.g., mass edits) are throttled to protect HQ load.

- Queue depth and sync latency metrics monitored.

\*\*11.6 Global Shop Sync Dashboard\*\*

- Overview of each shop's:

- Last sync time

- Pending logs

- Errors and retries

- Can trigger re-sync or manual override from HQ.

\*\*11.7 Sync Behavior Tags\*\*

- Each shop can be tagged:

- `auto\_sync`

- `manual\_sync\_only`

- `disabled`

- Helps manage edge cases like testing/staging shops.