

Cause :

- Local Mode APs are not designed for standalone operation. They depend on the WLC for critical functions like authentication, policy enforcement, and traffic forwarding.
- Unlike FlexConnect Mode, which supports local switching and can keep clients connected during WLC downtime, Local Mode has no such capability.

After WLC goes down :

Dependency on WLC:

- In Local Mode, a Lightweight AP relies on the WLC for both control (management, configuration) and data (client traffic is tunneled to the WLC via CAPWAP).
- If the WLC becomes unreachable (e.g., due to a failure, network issue, or WAN outage), the AP loses its CAPWAP tunnel connection to the controller.

AP Behavior:

- The AP will attempt to reconnect to the WLC or find a backup controller (if configured) for a short period (typically 60-180 seconds, depending on settings).
- If it cannot reconnect, the AP essentially stops functioning for client services in Local Mode.

Impact on Wireless Clients:

- **Existing Clients:** All connected clients will be disconnected. The AP cannot forward traffic or maintain sessions without the WLC, as all client data is tunneled through the controller.
- **New Clients:** New devices cannot associate with the AP or join the network until the WLC is restored.
- **Result:** The Wi-Fi service in that AP's coverage area effectively goes offline.

Recovery

- Once the WLC comes back online or the AP connects to a backup controller, the AP will re-establish the CAPWAP tunnel.
- Clients will need to reconnect, often re-authenticating (e.g., re-entering credentials for WPA2-Enterprise).

Mitigation

- **Use FlexConnect Mode:** Allows local switching, so clients can stay connected even if the WLC is down (if configured for local authentication).
- **High Availability:** Deploy redundant WLCs to failover in case the primary WLC fails.