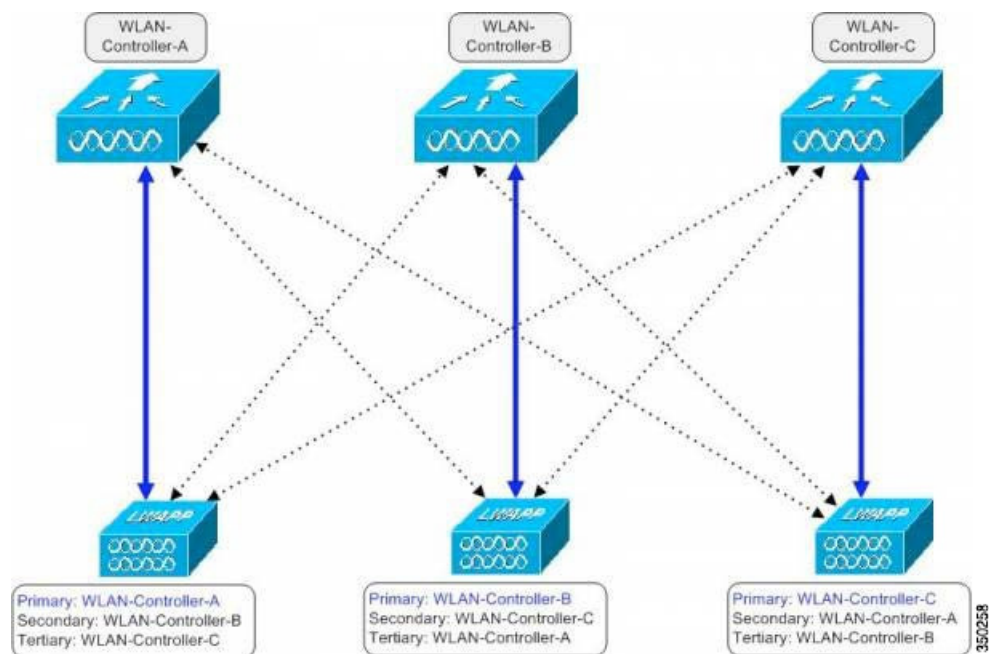# High Availability

With the WLC5760 first release, an AP can be configured with primary, secondary, and tertiary controllers. When the primary controller fails, depending upon the number of APs managed by a controller, the access point fails over to the secondary controller. Once it detects that the primary controller is unavailable, the AP rediscovers the controller and reestablishes the CAPWAP tunnel to the secondary controller. Additionally, the client must re-authenticate with the AP. Figure 10-1 illustrates the primary, secondary, tertiary controller redundancy.

Figure 10-1   WLC5760 High Availability

Note   In release 7.3 and later, the legacy WLC controllers support stateful switchover of access points (AP SSO). For additional information about the AP SSO high-availability functionality, refer to the High Availability (AP SSO) Deployment Guide.

N+1 Redundancy

The CT5760 supports N+1 redundancy where the controller is placed in the data center and acts as a backup for multiple WLCs. Each AP is configured with a WLC as the primary and all APs turn to the one redundant controller as secondary.

Figure 10-2   N+1 Redundancy
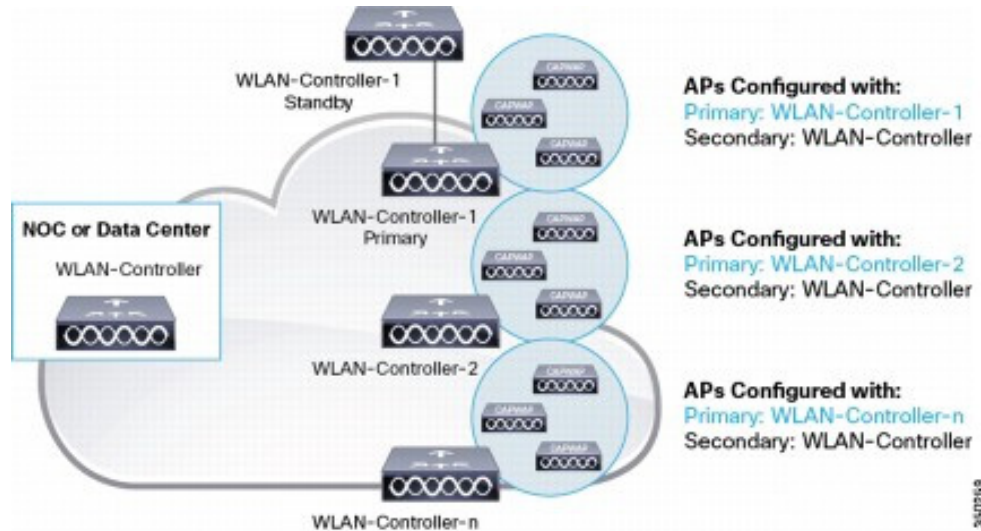
High Availability Configuration

```
#ap name apname controller ?
primaryConfigures primary controller
secondaryConfigures secondary controller
tertiaryConfigures tertiary controller
```

Use this command in order to check the configuration:

```
#show ap name <ap-name> config general
```

In order to reduce the controller failure detection time, you can configure the heartbeat interval between the controller and the AP with a smaller timeout value.

```
#ap capwap timers heartbeat-timeout <1-30>
```

In addition to the option to configure primary, secondary, and tertiary controllers for a specific AP, you can also configure primary and secondary backup controllers for a specific controller. If there are no primary, secondary, or tertiary WLCs configured on the AP side, and a primary and/or secondary backup controller are configured on the controller side (downloaded to the AP), the primary and/or secondary backup controller are added to the primary discovery request message recipient list of the AP. In order to configure a primary backup controller for a specific controller, use this command:

```
(config)#ap capwap backup ?
```

```
primaryConfigures primary Controller
secondaryConfigures secondary Controller
```