Online Insertion and Removal

Online insertion and removal (OIR) enables you to replace faulty modules without affecting system operation. There is only soft OIR,which is done via CLI.

Soft OIR Procedures

The following describes the soft OIR procedures:

```
Router# hw-module subslot 0/0 start
client#
*Oct 26 21:50:22.272: %IOSXE_OIR-6-SOFT_STARTSPA: SPA(C1111-2x1GE) restarted in subslot 0/0
client#
*Oct 26 21:50:28.553: %SPA_OIR-6-ONLINECARD: SPA (C1111-2x1GE) online in subslot 0/0
```

```
Router# hw-module subslot 0/0 stop
Proceed with stop of module? [confirm]

*Oct 26 21:50:15.498: %SPA_OIR-6-OFFLINECARD: SPA (C1111-2x1GE) offline in subslot 0/0
*Oct 26 21:50:15.499: %IOSXE_OIR-6-SOFT_STOPSPA: SPA(C1111-2x1GE) stopped in subslot 0/0,
interfaces disabled
```

```
Router# hw-module subslot 0/0 reload
Proceed with reload of module? [confirm]
Router#
*Nov  6 17:23:58.176: %IOSXE_OIR-6-SOFT_RELOADSPA: SPA(C1111-2x1GE) reloaded on subslot 0/0
*Nov  6 17:23:58.179: %SPA_OIR-6-OFFLINECARD: SPA (C1111-2x1GE) offline in subslot 0/0
*Nov  6 17:24:09.320: %SPA_OIR-6-ONLINECARD: SPA (C1111-2x1GE) online in subslot 0/0
```

Manage OIR for Pluggable LTE Modules

To replace a faulty pluggable module, or to swap a module when the system is in operation, use the following CLI:

hw-module subslot <*subslot*> **stop**

Wait for the module to power off and then remove the module. Insert another pluggable LTE module into the slot, which is automatically detected, powers-up, and is authenticated.

```
Router# hw-module subslot 0/2 stop
Proceed with stop of module? [confirm]

Router#
*Oct 26 21:50:15.498: %SPA_OIR-6-OFFLINECARD: SPA (C1111-2x1GE) offline in subslot 0/2
*Oct 26 21:50:15.499: %IOSXE_OIR-6-SOFT_STOPSPA: SPA(C1111-2x1GE) stopped in subslot 0/2,
interfaces disabled
```