Add new endpoint and its input/output cluster in zpscfg, a new endpoint name DIMMABLELIGHT\_LIGHT2\_ENDPOINT will be generated automatically in Zps\_gen.h

```
    platform:/resource/JN-AN-1189-ZigBee-HA-Demo_latest/Common/Source/app.zpscfg

  ZigBee PRO Wireless Network
    ▶ Profile "ZDP" (0x0000)
    ▶ Profile "HOME AUTOMATION" (0x0104)

    Coordinator "Coordinator"

    A Nouter "DimmableLight"
       ▶ End Point "ZDO" (0)
       ▶ Find Point "LIGHT" (1)
       End Point "LIGHT2" (2)

    Input Cluster "Basic" -> apduZCL

           Input Cluster "OnOff" -> apduZCL
           Output Cluster "Basic" <- apduZCL
           Output Cluster "OnOff" <- apduZCL
       PDU Manager
        RF Channels (11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26 : 0x7fff800)
         Node Descriptor (Manufacturer Code = 4151)
```



Increase HA\_NUMBER\_OF\_ENDPOINTS by 1. For dimmable light, originally it's 1, so increase it to 2.

```
00037: #define ZCL OPTIONS H
Zcl options.h
                    00038:
                    00039: #include <jendefs.h>
# ifndef ZCL_OPTIONS_ _
                    00040:
 * ZCL_OPTIONS_H
                    00041: PUBLIC void VSaveScenesNVM (void);
 include <jendefs.h>
 vSaveScenesNVM
                    00042: PUBLIC void vLoadScenesNVM (void);
 vLoadScenesNVM
 * COOPERATIVE
                    00043:
 # HA_NUMBER_OF_
 # HA NUMBER OF
                                                             *******************
                    00044: /****
 * ZCL_MANUFACTU
                    00045: /***
                                      Macro Definitions
 CLD BASIC
 * BASIC_SERVER
 * CLD_IDENTIFY
                    00047: #define COOPERATIVE
 # IDENTIFY_SERVE
                    00048: //#define HA NO APS ACK
 CLD IDENTIFY TI
 # CLD GROUPS
                    00049:
 GROUPS_SERVER
                    00050: #define HA NUMBER OF ZCL APPLICATION TIMERS
 * CLD GROUPS MA
                    00051: #define HA NUMBER OF ENDPOINTS
 CLD_GROUPS_DIS
 CLD_ONOFF
                    00052: #define ZCL MANUFACTURER CODE
                                                                                              CONFIG MANUFACTURER CODE
 ** ONOFF_SERVER
                    00053:
 * CLD LEVEL CON
 * LEVEL_CONTROL
                    00054: /* Clusters used by this application */
 * CLD_LEVELCONTI
                    00055: #define CLD BASIC
 CLD_LEVELCONTI
                    00056: #define BASIC SERVER
 # CLD LEVELCONTI
  # CLD SCENES
                    00057:
   SCENES SEDVE
```



 Register the new endpoint, the same callback function (APP\_ZCL\_cbEndpointCallback) can be shared or use a new callback for the new endpoint callback function.

```
* RETURNS:
                           00158:
App_zcl_light_task.c
                           00159:
                                   * void
                           00160:
 * TRACE_PATH
                                    00161:
# else
 ** TRACE_PATH
                                  PUBLIC void APP_ZCL_vInitialise (void)
endif

■ CLAMP

                           00163: {
# if (CONFIG_ENABLE_FACTORY_
                           00164:
                                       teZCL Status eZCL Status;
 * BREATH_EFFECT
                           00165:
# ifdef CLD_SIMPLE_METERING
                           00166:
                                       /* Initialise ZHA */
 ** LAMP DEMAND WATTS MA
                           00167:
                                       eZCL Status = eHA Initialise(&APP ZCL cbGeneralCallback, apduZCL);
# LEVEL_SAVE_DELAY_10MS
                                       if (eZCL Status != E ZCL SUCCESS)
                           00168:
APP ZCL cbGeneralCallback
                           00169:
APP_ZCL_cbEndpointCallback
                           00170:
                                            DBG vPrintf(TRACE ZCL, "\nErr: eHA Initialise:%d", eZCL Status);
# ifdef CLD_BAS_CMD_RESET_T(
 APP ZCL vHandleBasicFacto
                           00171:
                           00172:
# ifdef CLD SIMPLE METERING
                           00173:
                                       /* Start the tick timer */

    fCurrentSummationDelivered

                           00174:
                                       OS eStartSWTimer (APP TickTimer, TEN HZ TICK TIME, NULL);
# if (CONFIG_RESTORE_DIM_LEV
                           00175:
 u16LevelChangeTick
                           00176:
                                       /* Register EndPoint */
# endif
                           00177:
                                       eZCL Status = eApp HA RegisterEndpoint(&APP ZCL cbEndpointCallback);
OS_TASK
                           00178:
APP_ZCL_vSetIdentifyTime
OS_TASK
                           00179:
                                       eZCL Status = eApp HA RegisterEndpoint2(&APP ZCL cbEndpointCallback);
u320TA_Time_Ms
                           00180:
OS TASK
                           00181:
                                       if (eZCL Status != E ZCL SUCCESS)
■ APP ZCL cbGeneralCallback
APP ZCL cbEndpointCallback
                           00182:
APP vHandleldentify
                           00183:
                                                DBG vPrintf(TRACE ZCL, "Error: eApp HA RegisterEndpoint:%d\r\n", eZCL Status);
## if (CONFIG RESTORE DIM LEV
                           00184:
 APP_ZCL_SaveLightLevel
                           00185:
# ifdef CLD_BAS_CMD_RESET_T(
                                       #: facf of D openinomen
```



 Use the new endpoint name DIMMABLELIGHT\_LIGHT2\_ENDPOINT for the new register function.

```
Descirption
App_DimmableLight.c
                         00073: * Type
                                                       Name
                                 * tfpZCL ZCLCallBackFunction fptr
                                                                              Pointer to ZCL Callback function
                         00075:
# include <jendefs.h>
                                 * RETURNS:
                         00076:
include "zps_gen.h"
include "App_DimmableLight."
                                 * teZCL Status
include "AppHardwareApi.h"
                         00078:
# include "dbg.h"
# include "os.h"
                         00079:
# include <string.h>
                                PUBLIC teZCL Status eApp_HA_RegisterEndpoint(tfpZCL ZCLCallBackFunction fptr)
# include "app_light_interpolatio
# include "DriverBulb_Shim.h"
                         00081: {
sLight
                         00082:
                                     return eHA RegisterDimmableLightEndPoint(DIMMABLELIGHT LIGHT ENDPOINT,
eApp_HA_RegisterEndpoint
                         00083:
                                                                                    fptr,
vAPP ZCL DeviceSpecific In
                         00084:
                                                                                    &sLight);
# ifdef CLD_BAS_CMD_RESET
 vApp_ZCL_ResetDeviceStr
                         00085:
# endif
                         00086
vWhiteLightSetLevels
                                PUBLIC teZCL Status eApp_HA_RegisterEndpoint2(tfpZCL ZCLCallBackFunction fptr)
## if (defined DR1175) || (defined I
 S ISR
                         00088
 OS ISR
                                     return eHA RegisterDimmableLightEndPoint DIMMABLELIGHT LIGHT2 ENDPOINT
 OS ISR
                         00089
endif
                                                                                    fptr,
u8AppGetEPId
                         00091
                                                                                    &sLight);
                         00092
                         00093
                         00095:
                                 * NAME: vAPP ZCL DeviceSpecific Init
                         00097:
```

