Basic IP Phone Configuration on Cisco Call Manager Express

Before showing you how to configure a basic IP phone on Cisco CallManager Express (CCME), you need first to understand the concepts of **ephone** and **ephone-dn**.

In CCME, ?**ephone**? (short for Ethernet Phone) refers to the physical IP phone device, and is configured with the Ethernet MAC address of the IP phone. The MAC address of the IP phone uniquely identifies the device on the network and is found on a sticker on the underside of the IP phone or from the phone's shipping carton label.

The ephone directory number (**ephone-dn**) refers to the phone lines that are associated with the ephone device. The ephone-dn parameter basically configures the telephone device number. Also, the ephone-dn can use the ?dual-line? option which will allow the IP phone to handle two simultaneous calls. The dual-line option also provides a way for the phone to support call waiting, conferencing, call transfer with consultation etc.

Configuration:

In the following configuration we will configure a Cisco 7960 IP phone with two directory numbers 2100 and 2200 on the first two line buttons of the telephone.

```
CCME#show   running-config
!Tell the router that the phone firmware P00303020214.bin is located   in Flash
tftp-server flash:P00303020214.bin

!Configure the IP Telephony DHCP range
ip dhcp pool Voice
network 10.1.1.0 255.255.255.0
default-router 10.1.1.1
option 150 ip 10.1.1.1

interface FastEthernet0/0
ip address 10.1.1.1 255.255.255.0

telephony-service
ip source-address 10.1.1.1
load 7960-7940 P00303020214
max-ephones 24
max-dn 24
create cnf-files

!Configure the first directory number 2100
ephone-dn 10 dual-line
number 2100

!Configure the second directory number 2200
ephone-dn 11 dual-line
number 2200

!Configure the 7960 phone and assign ephone-dn numbers to buttons 1   and 2
ephone 1
```

mac-address 000d.aa45.3f6e

type 7960

button 1:10 2:11

Source from: http://www.cisco-tips.com/basic-ip-phone-configuration-on-cisco-call-manager-express/