



Configuring the Content Engine

In Cisco IP/TV Release 5.1, IP/TV Program Manager is a device mode on the Cisco Content Engine (565 and 7305 models). To set up IP/TV Program Manager on your network, you must first install the Content Engine on your network and configure it as described in this chapter.

This chapter explains the steps for installing and configuring the Content Engine on your network and setting the device mode to IP/TV Program Manager.

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Installing the Content Engine

For details on physically installing the Content Engine, refer to the Cisco Content Engine hardware installation guide that shipped with your Content Engine.

Registering the Content Engine on the Network

Once the Content Engine is installed on the network, you must register it on the network. This includes configuring the IP address, netmask, DNS host, and gateway IP address.

If the Content Engine is installed as part of an ACNS network, on bootup the Content Engine automatically discovers the Content Distribution Manager and registers with it. You do not have to do any manual configuration locally on the Content Engine. Once the Content Engine is registered, you can approve it and configure it remotely using the Content Distribution Manager GUI. For more information on autoregistration, refer to the “Setting Up and Registering ACNS Network Devices” section in Chapter 3 of the *Cisco ACNS Software Deployment and Configuration Guide, Release 5.1*.

However, if you are using a Content Engine in a standalone IP/TV network, you must configure the network settings manually.

To manually configure network settings and register your ACNS network devices you must first disable autoregistration. This can be done using the startup dialog, or through the CLI after the device has booted.

Configuring the Content Engine Network Settings

After you physically install the hardware and power up the Content Engine, you can access the ACNS software and perform an initial startup configuration.

The initial configuration defines the network settings of the Content Engine so that it can become active on the ACNS network.

About Selecting Static IP Addresses or Using DHCP

During the initial configuration, you have the option of configuring a static IP address for the Content Engine or choosing Dynamic Host Configuration Protocol (DHCP). This section describes these two options.

DHCP is a communications protocol that lets network administrators manage their networks centrally and automate the assignment of IP addresses in an organization’s network. When an organization sets up its computer users with a connection to the Internet, an IP address must be assigned to each device. Without

DHCP, the IP address must be entered manually for each computer, and if computers move to another location in another part of the network, a new IP address must be entered. DHCP automatically sends a new IP address when a computer is connected to a different site in the network.

In the following sample startup dialog, the administrator has chosen to enable DHCP. Administrator entries are shown in bold.

```
BOOT-100:sw-file systems mounted, applying pending upgrades...
SW up-to-date

ACNS boot:detected no saved system configuration
  Do you want to enter basic configuration now?
  hit RETURN to enter basic configuration:0019
admin password:
re-enter password:
Please enter an interface from the following list:
  0:GigabitEthernet 1/0
  1:GigabitEthernet 2/0
enter choice:0
Enable DHCP on this interface? (y/n) [n]:y

      [0] Go to the CLI command prompt without saving this config.
      [1] Return back to the setup without saving this config.
      [2] Save this configuration to flash and go to CLI prompt.

Choose one? [2]:2
Running pre-200 hooks...
```

Configuring Network Settings Using the Startup Dialog

The startup dialog allows you to configure the Content Engine network settings using an interactive dialog instead of the command-line interface (CLI). If you wish, you can disable autoregistration by responding to the startup dialog prompt and configuring the first interface (Ethernet 0/0 or GigabitEthernet 1/0) on your Content Engine with either a static IP address or with interface-level DHCP. If you specify the configuration on the interface that uses autoregistration, autoregistration is automatically disabled.

You can also use the startup dialog to configure other interfaces if you have multiple interfaces on your Content Engine.

To use the startup dialog, follow these steps:

Step 1 Power up the Content Engine and open a console connection.

After the operating system boots up, the following prompt appears:

```
ACNS boot:detected no saved system configuration
Do you want to enter basic configuration now?
hit RETURN to enter basic configuration:0028
```

At the appearance of this prompt, a 30-second countdown begins, during which you can respond to this prompt and initiate the startup dialog. If you do not respond, the system continues booting and automatically registers with the Content Distribution Manager.

Step 2 Press **Enter**, and then enter values for the following fields as you are prompted:

- Admin password for the Content Engine.

This is the case-sensitive password you want to use for the **admin** administrator user account. The password can include any printable character.

- Interface identifier for the initial configuration

All other interfaces can be configured later with the CLI.

- IP address for the Content Engine, for example, 172.16.13.8 (if DHCP is not used)
- IP network mask (netmask) for the Content Engine, for example, 255.255.255.224 (if DHCP is not used)

A netmask specifies which part of the IP address refers to the network; you can accept the default value by pressing **Enter**, or you can enter a different value.

- Gateway IP address for the Content Engine, for example, 172.16.13.7 (if DHCP is not used)

This is the IP address of the router that allows the Content Engine to connect to the network.

- DNS name server IP address for the device
- Host name for the device



Note The IP/TV Program Manager host name must be resolvable by DNS.

- Domain name for the device

Step 3 Choose whether or not to save the configuration. If you choose to save the configuration, the Content Engine performs hardware and software initialization tasks and then serves a login challenge that, when answered correctly, launches the CLI. At this point, the initial configuration is complete.

In the following sample startup dialog, administrator entries are shown in bold. The administrator has chosen not to enable DHCP.

```
BOOT-100:sw-filesystems mounted, applying pending upgrades...
SW up-to-date
```

```
ACNS boot:detected no saved system configuration
  Do you want to enter basic configuration now?
    hit RETURN to enter basic configuration:0016
admin password:
re-enter password:
Please enter an interface from the following list:
  0:GigabitEthernet 1/0
  1:GigabitEthernet 2/0
enter choice:0
Enable DHCP on this interface? (y/n) [n]:n
local IP address:172.16.13.8
IP network mask:255.255.255.254
gateway IP address:172.16.13.7
DNS server:10.10.10.11
host name:CE7305
domain name:cisco.com
```

```
[0] Go to the CLI command prompt without saving this config.
[1] Return back to the setup without saving this config.
[2] Save this configuration to flash and go to CLI prompt.
```

```
Choose one? [2]:2
Running pre-200 hooks...
```

- Step 4** To make sure that a primary interface has been configured on the Content Engine, use the **show running-config** command. A primary interface should have been chosen automatically by the software during the initial startup; however, you can configure a primary interface manually by using the **primary-interface** command in global configuration mode.
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Configuring Network Settings Using the CLI

To configure Content Engine network settings using the CLI, follow these steps:

- Step 1** Power up the Content Engine and log on through the console or by opening a Telnet session.

- Step 2** From the device CLI, enter configuration mode.

```
CE-565# config
CE-565(config)#
```

- Step 3** In configuration mode, configure the device network settings by using the following commands:

- Configure your Ethernet interface for DHCP.

```
CE-565(config)#interface {FastEthernet | GigabitEthernet}
slot/port ip address dhcp
```

The remainder of your network settings are configured automatically. You have finished configuring your network settings.

- Alternatively, configure the static IP address of your Ethernet interface.

```
CE-565(config)#interface {FastEthernet | GigabitEthernet}
slot/port ip address ip-address netmask
```

Step 4 Continue configuring the remaining network settings.

- a. Configure the IP domain name.

```
CE-565(config)#ip domain-name name1 name2 name3
```

- b. Configure the host name.

```
CE-565(config)#hostname name
```



Note The IP/TV Program Manager host name must be resolvable by DNS.

- c. Configure the IP name server.

```
CE-565(config)#ip name-server {ip-addresses | serial-lookup}
```

- d. Configure the IP default gateway.

```
CE-565(config)#ip default-gateway ip-address
```

- e. Configure the primary interface.

```
CE-565(config)#primary-interface {FastEthernet | GigabitEthernet}  
slot/port [dhcp]
```

Configuring Disk Space

If you are configuring a brand-new Content Engine, you need to create disk space for the system file system (sysfs) by using the **disk config** command in EXEC mode. To configure disk space, follow these steps:

Step 1 Exit configuration mode, if you have not already done so.

```
CE-565(config)# exit  
CE-565#
```

Step 2 Enter the **disk config** command. For example, to configure the sysfs for 5 GB:

```
CE-565# disk config sysfs 5GB
```

Step 3 Reload the Content Engine for the disk configuration to take effect.

```
CE-565# reload
```



Tip

For the new disk space configuration to take effect, you must first restart the software; however, if you are going to change the device mode, you can wait to restart until after you have configured the new device mode.

Choosing the Device Mode

IP/TV Program Manager is a device mode of the Cisco Content Engine. By default, the Content Engine is set to function as a Content Engine. To gain access to IP/TV Program Manager, you must change the device mode of the Content Engine to IP/TV Program Manager. To do this, open a console connection or a Telnet session to the Content Engine and enter the following global configuration command:

```
Content-engine(config)# device mode program-manager
```

After choosing the device mode using this command, you must reboot the Content Engine for the change in device mode to take effect.

**Note**

Once the device mode is set to IP/TV Program Manager, the Content Engine is not listed in the device list of the Content Distribution Manager.

■ **Choosing the Device Mode**