Initial Configuration Using Manual Setup

Time Estimate: 60 – 90 minutes

Task 1: Power Up and Access the Administrative Interface

**NOTE**  Take a few minutes to familiarize yourself with the lab topology. Use the Lab Topology Diagram to familiarize yourself with the LAN/WAN IP addresses so that you remain oriented throughout the labs.

**Step 1**  Connect the BE 3000 to a power supply and turn the rocker switch on the back panel to the “ON” position. The system will power on.

**Step 2**  If the system does not power on you may have an older firmware that requires an additional step: From the front panel of the BE 3000, press the small POWER button until the green light comes on.

**Step 3**  The BE 3000 is now in the initial boot phase – this will take a few minutes.

**Step 4**  OPTIONAL: If you wish to observe the boot process you can connect a VGA monitor to the BE 3000 via the video connector on the back panel. You may also connect a USB keyboard via either of the two USB connectors on the back panel.

**Step 5**  Connect your PC to the BE 3000 by connecting an Ethernet cable between the NETWORK connection on the back panel of the BE 3000 and the corresponding network connection on your PC.

**Step 6**  The default IP address of the BE 3000 is 192.168.1.250 with a network mask of 255.255.255.0. Manually configure a static IP address for your PC, we use 192.168.1.100 and a mask of 255.255.255.0 in our labs.

**Step 7**  Using your web browser, access the BE 3000 administration tool via https://192.168.1.250.
Step 8  Your browser will likely not recognize the BE 3000 web security certificate. If so, you will need to accept it or add an exception. The details of doing so will vary by browser but the end result should be that you proceed to the installed applications screen.

![Image](https://example.com/image1.png)

Step 9  After accepting the warning or adding an exception, the installed applications screen appears.

![Image](https://example.com/image2.png)

Step 10  Choose the Cisco Unified CM Business Edition 3000 link and a login screen will appear.

![Image](https://example.com/image3.png)

Step 11  For faster access in future, you should bookmark and go directly to the following URL: https://192.168.1.250/cucmadmin/

Step 12  The default username and password are as follows:

User: admin
Password: BE-3000
**Step 13**  Click the Login button to proceed.

**Step 14**  The BE 3000 Administrative Interface and First Time Setup Wizard will display.
Task 2: Run the First Time Setup Wizard

NOTE It's best to work slowly through the wizard; read the information and help panels. We provide all the information you need to complete the wizard for the demo, but you should think about how to collect similar information for your customers. It will be faster to use the Cisco-provided spreadsheet and automatic installation for production purposes, but useful to know the manual process so that you master all aspects of configuration.

Step 1 Look at the top right-hand side of the interface and notice that it identifies who you are currently logged in as (admin) and provides links to About and Help.

Step 2 The About link provides a fast way to determine the software version and licensed organization associated with the BE 3000 unit. Version 8.6.1 is shown in this example. Click the “X” in the upper corner of the About window to dismiss it.
Step 3  The Help button provides context sensitive information relevant to the specific configuration screen you are on at the time you click the link. In this case, the country selection of the first time setup wizard. You can also browse the help file, search for terms within it or print the current page.

Step 4  The top of the interface also provides a list of the major steps in the configuration wizard and indicates your progress as you work through the steps.

Step 5  The bottom right of the interface provides a means to navigate forward and backward through the first time wizard and the ability to cancel the wizard completely and abandon all configuration and progress so far.

Step 6  The wizard automatically begins at the Country/Language step. From the “Country, Language” drop-down box you can select Canada, India or United States. If one of these selections is suitable you can proceed with the wizard.
**Step 7**  
Note that you could also install an additional country pack at this time. Country Packs are installed using Cisco-provided files. There will be a later lab for installing country packs that you can follow if you are interested in the details.

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**NOTE**  
The country/locale selection will impact the language used to display the following: help, first time setup wizard, administrative interface and user preferences interface. It will also impact the dial plan and dial tones used by the system. As a result, once the initial setup wizard completes, you cannot change this selection without re-installing the BE 3000 software.

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**Step 8**  
We will use United States, English as our choice and proceed with the wizard. Click the Next button at the bottom right of the screen.

**Step 9**  
In the Change Administrator Username and Password screen, we will maintain the existing default username and password as a convenience for demonstration purposes only. Set the username as **admin** and the password as **BE-3000**. It is a best practice in a production environment to change these to secure, non-default values.

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**Step 10**  
Click Next to continue.
Step 11  Starter licenses for 5 phones and voice mailboxes are provided for initial setup and testing purposes only. We will use the 5 trial licenses for our demo.

Step 12  License files should be installed for production systems by clicking the “Install License” button and providing the proper .lic file. The 5 starter licenses will be deleted when a production license is installed so do not count these trial licenses as part of your permanent allocation.

Step 13  The bottom of the license screen can be used to see descriptions of the various license types and to verify which licenses have been installed on the system.
### Step 14
Click Next to continue.

### Step 15
Setup Mode allows administrators to continue with manual setup or to use the Cisco-provided spreadsheet file to specify settings for initial system configuration. Continue with manual setup for this lab.

![Setup Mode (Step 2 of 2)](image)

### Step 16
Click Next.

### Step 17
The first screen for system settings allows changes to the hostname, IP address, default gateway and DNS parameters. Use the following parameters for our demo:

- **System Hostname:** ISS-Demo
- **IP Address (System):** 192.168.1.250
- **IP Address (Media Resource):** 192.168.1.251
- **Subnet Mask:** 255.255.255.0
- **Default Gateway:** 192.168.1.1
- **DNS resolution:** Do not enable

![System Settings - Network (Step 1 of 2)](image)

### Step 18
Click the Show Advanced Setting link.
Step 19  We will not change the advanced settings, but note that you can manually set network interface settings if desired.

![Advanced Network Settings](image)

Step 20  Click Next.

Step 21  The system will automatically test reachability of the default gateway. We have not yet connected to a network, so this test should fail and an error message will display.

![Default Gateway Unreachable](image)

Step 22  Click Continue.

Step 23  The second screen for system settings allows changes to the system time zone, date and current time. Set the values as appropriate for your region.

![System Settings - Date and Time](image)

Step 24  Click Next.
Step 25  The first PSTN Gateway screen assumes that at least a single T1 connection to the PSTN will be configured. For demo purposes it is not likely that you will set up a call to an outside line. You can review the settings of your system if you wish.

![Configure Port 1 (Step 1 of 2)](image1.png)

Step 26  Click on the Show Advanced Settings link to see the extensive list of parameters that can be configured for the BE 3000. In production environments you will work with your service provider to ensure that the appropriate settings are used.

Step 27  Click Next.

Step 28  The second PSTN gateway screen will display for sites that require an optional secondary T1 connection to the PSTN. The settings on this screen are similar to those of the first T1 PSTN gateway screen. We will not activate the second T1 or make any changes to this screen.

![Configure Port 2 (Step 2 of 2)](image2.png)

Step 29  Click Next.
Step 30  The Configure Dial Plan screen has a number of critical entries. The first is the Main Number, which documents the number used by outside callers to reach the BE 3000 when it is connected to the PSTN. We will use 9585505100.

![Configure Dial Plan](image)

Step 31  The Extensions section documents the extension length, default and additional allowed extensions and voicemail/auto-attendant extension. Notice that the default extension range is derived from the main number and extension length settings. With an extension length of 4 we count backwards 4 positions from the end of the main number to reach the number “5”. The default extension range will therefore be automatically calculated as 5000 through 5999. We will use the following values:

- Extension Length: 4
- Default Allowed Extensions (automatically filled in): 5000-5999
- Additional Allowed Extension: 6000-6999
- Voicemail and Auto Attendant Extension: 5000

![Extensions](image)

Step 32  Accept the default values for dialing prefixes:

- Operator Dial Code: 0 (used to reach the main operator/receptionist)
- Outside Dial Code: 9 (used to indicate the caller wishes to reach an outside line)
- Feature Dial Code: 3 (used to access internal telephony features)

![Dialing Prefixes](image)
**Step 33** Based upon the selected feature dial code, the system will display the value of selected features. The call park, call pickup and meet me extensions should be noted and documented in a production system.

![Feature Extensions Table](image)

**Step 34** Click Next.

**Step 35** At the Configure Sites screen, we will accept the default option to configure a central site only. Later labs will explore multisite configurations, but the demo will focus on single site deployments for simplicity of setup and demonstration.

![Configure Sites](image)

**Step 36** Click Next.
**Step 37** At the first Configure Central Site page use the following General settings:

Name: ISS-HQ
Description: ISS Headquarters
Local Area Code: 958
Internal Networks: 192.168.1.0/24
Allow access to all media resources

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### Configure Central Site (Step 1 of 1)

**General**

<table>
<thead>
<tr>
<th>Basic Site Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name:</strong></td>
</tr>
<tr>
<td><strong>Description:</strong></td>
</tr>
<tr>
<td><strong>Local Area Codes:</strong></td>
</tr>
</tbody>
</table>

**Internal Networks**

<table>
<thead>
<tr>
<th>Subnet</th>
<th>Mask</th>
</tr>
</thead>
<tbody>
<tr>
<td>192.168.1.0</td>
<td>24</td>
</tr>
</tbody>
</table>

**Media Access Allowed**

- [x] Allow Access to Conference Bridge
- [x] Allow Access to Music On Hold Server
- [x] Allow Access to Transcoders
Step 38 Use the following Call Settings:

Highest Privilege Allowed: International Calls
Allow Emergency Calls from this site: checked
Additional Emergency Services Number: no additional numbers
Emergency Location ID Numbers: 9585509999

NOTE You must work with your local provider to determine the correct settings for emergency calling, and these settings should be tested as part of the commissioning process for a production system. The values we use are fictional and are not intended for use outside of the demo process.
Step 39 Use the following Call Quality settings:
Calls Between Sites
Bandwidth Between Sites: T1
Enable Video Calls Between Sites: checked
Bandwidth Allocated for Audio and Video: 100%
Audio Quality / Call Quality Tradeoff: 3rd marker (32 audio calls, 3 video calls)
Calls Within Sites
Audio Quality / Call Quality Tradeoff: Best Quality

Step 40 Click Next.

Step 41 The Usage Profiles screen displays the default usage profiles for Assistant, Common Area, Manager, Power and Standard. We will not change profiles at this time.
**Step 42**  Click Next.

**Step 43**  A summary of the manually entered settings will be displayed. Click through the tabs to verify that the settings are as expected and that you did not make any data entry errors.

![Summary](image)

**Step 44**  Click Finish.

**Step 45**  The Day One Settings Progress indicator will display the percentage completion as the settings are applied to the BE 3000.

![Day One Setup Progress Indicator](image)

**Step 46**  After a few minutes, the system will reboot. This will also take a few minutes. If you have a VGA monitor attached to the BE 3000 you can monitor the progress of the reboot.

![Setup Wizard completed successfully, system will reboot now.](image)
Step 47 If you are monitoring with a connected VGA screen, wait until you see a message similar to the following before resuming your administrative session with the BE 3000.


Step 48 Test your connection to the BE 3000 by using your web browser to access the BE 3000 administration tool via https://192.168.1.250/cucadmin/

Step 49 Your browser may not recognize the BE 3000 web security certificate. If so, you will need to accept it or add an exception. The details of doing so will vary by browser but the end result should be that you proceed to the installed applications screen.

Step 50 After accepting the warning or adding an exception, the administrative interface login screen appears.

Step 51 If the BE 3000 displays a page not found error or does not seem to respond promptly, simply give the system a few minutes of additional time for the appropriate processes to complete their initialization.
Step 52  Login with the credentials that were established during the wizard. In our case, the username and password are as follows:

User: admin
Password: BE-3000

Step 53  Click the Login button to proceed.

Step 54  You will see a message similar to the following:

![Post Setup Tasks]

Step 55  We will address these next steps and more in the following labs.

Step 56  This completes the lab.