



APPENDIX **D**

Using Chinese Characters With Cisco Prime Network

Cisco Prime Network Vision lets you attach business tags to the following network objects to support traditional and simplified Chinese characters:

- Location
- Node name
- Router name
- Map aggregation

The following business tag functions support Chinese characters:

- Creating business tags for network objects
- Searching for business tags
- Generating a list of business tags
- Editing business tag details
- Removing business tags
- Exporting business tags through the northbound interface (NBI)
- Writing business tag notes

Complete the following sections to use Chinese characters with Cisco Prime Network.

Using Chinese Characters with Oracle

If you are using Chinese characters, make sure the database parameter `NLS_CHARACTERSET` is set to a value that supports UTF8. Otherwise, Chinese characters will not display correctly after you install or upgrade to Cisco Prime Network 3.9.



Note

If you are using Oracle 10g, you probably need to change the `NLS_CHARACTERSET` value. If you are using Oracle 11g or the embedded database, the `NLS_CHARACTERSET` value is set to `AL32UTF8` by default, so you probably do not need to change it.

- Step 1** Stop Cisco Prime Network before changing the character set of your database.
- Step 2** To check the value of the NLS_CHARACTERSET parameter, enter the following SQL*PLUS command:
- ```
sql> SELECT parameter, value FROM v$nls_parameters WHERE parameter='NLS_CHARACTERSET';
```
- If the value is UTF8 or AL32UTF8, skip the remaining steps; no further action is required.
- Step 3** Check the job\_queue\_processes and aq\_tm\_processes parameters and record the current values, which you will restore later in this procedure. Complete the following substeps:
- To check the job\_queue\_processes value, enter the following command:
 

```
SQL> show parameter job_queue_processes
```

In the command output, you should see:

| NAME                | TYPE    | VALUE |
|---------------------|---------|-------|
| -----               | -----   | ----- |
| job_queue_processes | integer | 10    |
  - To check the aq\_tm\_processes value, enter the following command:
 

```
SQL> show parameter aq_tm_processes
```

In the command output, you should see:

| NAME            | TYPE    | VALUE |
|-----------------|---------|-------|
| -----           | -----   | ----- |
| aq_tm_processes | integer | 0     |
- Step 4** Use the Oracle CSALTER script to change the character set to UTF8 or AL32UTF8. The CSALTER script is part of the Oracle Database Character Set Scanner utility. Complete the following substeps to change the database character set. For details, see the *Oracle Database Globalization Support Guide*, section “Migrating a Character Set Using the CSALTER Script.”
- Use either a **SHUTDOWN IMMEDIATE** or a **SHUTDOWN NORMAL** statement to shut down the database.
  - Perform a full backup of the database, because the CSALTER script cannot be rolled back. See the [Cisco Prime Network 3.9 Administrator Guide](#) for database backup procedures.
  - Start the database.
  - Run the Oracle Database Character Set Scanner utility (the csscan script). The new character set must be UTF8 or AL32UTF8.
  - Run the CSALTER script.
  - Use either a **SHUTDOWN IMMEDIATE** or a **SHUTDOWN NORMAL** statement to shut down the database.
  - Start the database.
- Step 5** If the CSALTER script returns the error “Sorry, only one session is allowed to run this script,” do the following:
- Log into the database with SQL\*PLUS.
  - Use a **SHUTDOWN IMMEDIATE** statement to shut down the database.
  - Use **startup restrict** to start the database instance in restricted mode.
  - Rerun the CSALTER script.

**Step 6** Enter the following commands to restore the values that you recorded in [Step 3](#) for the `job_queue_processes` and `aq_tm_processes` parameters:

```
sql> alter system set job_queue_processes=10 SCOPE=BOTH; # value-from-Step 3
sql> alter system set aq_tm_processes=0 SCOPE=BOTH; # value-from-Step 3
```

**Step 7** Start Cisco Prime Network.

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## Using Chinese Characters with Windows Clients

If you are using Chinese characters, the Windows client workstation where the Cisco Prime Network 3.9 client is installed must have East Asian languages installed. Also, the regional options must support Chinese.

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- Step 1** In the Windows Control Panel, choose **Regional and Language Options**.
  - Step 2** Click the **Languages** tab.
  - Step 3** Insert the Windows CD.
  - Step 4** Check the **Install files for East Asian languages** check box.
  - Step 5** Click **OK**.
  - Step 6** Reopen the Windows Control Panel and choose **Regional and Language Options**.
  - Step 7** Click the **Regional Options** tab.
  - Step 8** In the drop-down list, choose **Chinese (PRC)**.
  - Step 9** Click **OK**.
  - Step 10** Restart your Windows client workstation.
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## Using Chinese Characters with Solaris

If you are using Chinese characters, make sure the Solaris environment variable `LC_CTYPE` is set to a value that supports UTF8. Otherwise, Chinese characters will not display correctly after you install or upgrade to Cisco Prime Network 3.9.

**Step 1** Using SSH, connect to the Cisco Prime Network gateway, switch to `network user` (where `network user` is the UNIX user account for the Cisco Prime Network application, created when Cisco Prime Network is installed), and enter the following commands:

```
su - network user
locale
```

The command output indicates whether the machine language (`LC_CTYPE`) uses UTF8.

- If the command output is UTF8, stop here; no further action is required.
- If the command output is not UTF8, enter the command `locale -a` and choose an option that uses UTF8 format; for example, `en_US.UTF-8`.



**Note** If the Solaris workstation does not have a UTF8 language package installed, see the Solaris documentation to install a UTF8 language package.

- Step 2** If an error regarding language support occurs when you start Cisco Prime Network, do the following:
- Verify that the LC\_CTYPE value matches one of the folder names in the /usr/lib/locale directory. This location contains all folders for the currently installed language support on the Solaris operating system.
  - If the required language does not appear in the /usr/lib/locale directory, use the localeadm utility to add the language to the operating system.
- Step 3** Enter the following command:
- ```
vi ~/.cshrc
```
- Step 4** Add the following line in the .cshrc file:
- ```
setenv LC_CTYPE language-option
```
- For example, to use the en\_US.UTF-8 language option, enter:
- ```
setenv LC_CTYPE en_US.UTF-8
```
- Step 5** Enter the following command to restart Cisco Prime Network 3.9:
- ```
networkctl restart
```
- Step 6** Use PuTTY to verify whether the BQL connection supports Chinese characters. PuTTY supports UTF-8 on Telnet and SSH connections.
- Open PuTTY.
  - Choose **Windows > Translation > Character set**.
  - Select **UTF-8**.
  - Click **Open**.
  - Connect to the Cisco Prime Network server 9002 port and run BQL commands. Verify whether the commands display Chinese characters correctly.

## Updating the Synth.xml File to Display Chinese Characters Correctly

If Chinese characters are not displayed correctly in the GUI, it is because the **synth.xml** file contains a physical font (such as Tahoma) that does not support Chinese characters. See the following example.

- Step 1** Navigate to the /export/home/ana37/Main/webstart/jars/xmp-laf directory and open the Cues.jar file.
- Step 2** Under com/cisco/plaf, modify synth.xml with the new fonts. The default font is defined as “Tahoma,” as follows:

```
<style id="default">
 <object id="graphicsUtils" class="com.cisco.plaf.CUESGraphicsUtils"/>
 <graphicsUtils idref="graphicsUtils"/>

 <object id="syntheticaPainter"
 class="de.javasoft.plaf.synthetica.painter.SyntheticaPainter"/>
```

```
<state>
 <!-- CUES:
 <color type="FOREGROUND" value="#333333"/>-->

 <color type="FOREGROUND" value="#222222"/>
</state>
```

- Step 3** Change all four instances of “font name=” and/or “font id=” to the desired font. Cisco Prime Network was tested with the “Dialog” font.
- Step 4** Save and exit the **synth.xml** file.
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