Installation and Configuration Guide for Weather Forecast and Quick Calculator 1.0

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Installation and Configuration Guide for Weather Forecast and Quick Calculator
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Preface

Overview

Installation and Configuration Guide for Weather Forecast and Quick Calculator 1.0 provides the information you need to install, configure, and use the MIDlets on the Cisco Unified IP Phones 9971, 9951, and 8961.

Audience

Network engineers, system administrators, or telecom engineers should review this guide to learn about the installation and configuration of basic MIDlets. General background knowledge of Cisco Unified Communications Manager is assumed and not covered in detail in this document. See the Related Documentation section on page iv for a list of related documentation.

Organization

Part	***Description***
Chapter 1, "Installation of MIDlets onto a Cisco Unified Communications Manager"	*Provides an overview of the process for installing a MIDlet onto an existing Cisco Unified Communications Manager node.*
Chapter 2, "Subscription of a MIDlet Service to an IP Phone"	*Describes the process for subscribing installed and configured MIDlets to an IP Phone.*
Chapter 3, "Usage of the MIDlets by an End User"	*Describes the ways in which an end user can access and utilize the functions of the MIDlets.*
Chapter 4, "Known Limitations of the MIDlets"	*Details the known limitations and issues with the release version of the MIDlets.*

Related Documentation

For more information about the Cisco Unified Communications Manager or Cisco Unified IP Phones, refer to the following publications:

- *Cisco Unified Communications Manager Administration Guide, Release 8.0(1), which can be found at this URL:*
  http://www.cisco.com/en/US/products/sw/voicesw/ps556/prod_maintenance_guides_list.html
- *Cisco Unified Communications Manager System Guide, Release 8.0(1)), which can be found at this URL:*
  http://www.cisco.com/en/US/products/sw/voicesw/ps556/prod_maintenance_guides_list.html
- *Cisco Unified IP Phones 9971 and 9951 phones, which can be found at this URL:*
  http://www.cisco.com/en/US/products/ps10453/tsd_products_support_series_home.html
- *Cisco Unified IP Phones 8961 phone, which can be found at this URL:*
  http://www.cisco.com/en/US/products/ps10451/tsd_products_support_series_home.html

Obtaining Documentation and Security Guidelines

For information on obtaining documentation, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly What's New in Cisco Product Documentation, which also lists all new and revised Cisco technical documentation, at:

http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

http://www.cisco.com/en/US/products/sw/voicesw/ps556/prod_maintenance_guides_list.html

Finding Additional Information

You can access the most current Cisco Unified IP Phone documentation on the World Wide Web at this URL:

http://www.cisco.com/en/US/products/hw/phones/ps379/products_user_guide_list.html

You can access the Cisco website at this URL:

http://www.cisco.com/

Allows access to international Cisco websites from www.cisco.com by clicking on the Worldwide [change] link at the top of the web page

You can access the most current Licensing Information at this URL:

http://www.cisco.com/en/US/docs/voice_ip_comm/cuipph/all_models/openssl_license/7900_ssllic.html

Obtaining Support

The Weather Forecast and Quick Calculator applications are provided as demonstration of the phone's capabilities and are provided "as is" by Cisco. These applications were tested by Cisco on Cisco Unified IP Phones 8961, 9951 and 9971 running firmware version 9.0(2) while registered to Cisco Unified Communications Manager 8.0(2) and performed as expected in Cisco's quality assurance environment. The installation and operation of these applications are not supported by Cisco Technical Assistance Center (TAC) engineers: It is ultimately the customer's responsibility to test these applications in their own environment to determine whether they deliver suitable performance.

Document Conventions

This document uses the following conventions.

Convention	Description
boldface font	Commands and keywords are in **boldface**.
italic font	Arguments for which you supply values are in *italics*.
[ ]	Elements in square brackets are optional.
{ x | y | z }	Alternative keywords are grouped in braces and separated by vertical bars.
[x | y | z]	Optional alternative keywords are grouped in braces and separated by vertical bars.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.
screen font	Terminal sessions and information the system displays are in screen font.
boldface screen font	Information you must enter is in **boldface screen** font.
italic screen font	Arguments for which you must supply values are in *italic screen* font.
→	This pointer highlights an important line of text in an example.
^	The symbol ^ represents the key labeled Control—for example, the key combination ^D in a screen display means you hold down the Control key while you press the D key.
< >	Nonprinting characters, such as passwords, are in angle brackets.

Note Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the publication.

Caution Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

Warning Means *danger*. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents.

CHAPTER 1

Installation of MIDlets onto a Cisco Unified Communications Manager

This chapter describes the process for installing and provisioning MIDlets, which are applications written in the Java 2 Platform, Micro Edition version (J2ME), to a Cisco Unified Communications Manager. The first section covers the general procedure used for most MIDlets, while the following sections describe the details for Weather Forecast and Quick Calculator.

Note The MIDlets accept entries and display values only in US-English. For the Weather Forecast Application, only the US-English names of cities and countries are accepted. For the Quick Calculator Application, a period (‘.’) is used as the decimal separator.

Note The Cisco Weather Forecast Application uses the Internet services provided by WeatherBug. Cisco is not responsible for the accuracy or continuity of these services, which may be interrupted by the service provider at any time and without notice.

Note Weather Forecast requires the IP Phone have access to the Internet either directly or through a proxy server. Instructions for configuring a proxy server are in Chapter 2.

Note For both MIDlets to operate properly, port 80 communication must be unblocked between IP Phones and the Internet.

Note Weather Forecast and Quick Calculator require the following minimum software versions:

- Cisco Unified Communications Manager version 8.0
- Cisco Unified IP Phone 9971, 9951, or 8961 Firmware 9.0(2)

General Procedure

Java MIDlets are provisioned to Cisco Unified IP Phones using the same Cisco Unified IP Phone Services mechanisms as XML services.

Note The end user cannot directly upload the MIDlets onto an IP Phone. Please contact the system administrator to inquire about the availability of these services.

To take Java MIDlet application (in the form of a JAD file and a JAR file) and get it running on an IP Phone, perform these steps.

	Action
Step 1	Select **Device > Device Settings > Phone Services** in Cisco Unified Communications Manager Administration.
Step 2	Click **Add New**.
Step 3	Enter information in the IP Phone Services Configuration window, as described in the following sections for each MIDlet.
Step 4	Select **Save**.

Note This procedure only installs the MIDlet in the Cisco Unified Communications Manager services listing. It will not be accessible from an IP phone without first subscribing each phone to the service unless **Enterprise Subscription** was checked.

Weather Forecast

The following table lists the **Service Information** for the Weather Forecast MIDlet.

Field	Setting
Service Name	Enter **Weather Forecast** **Note** You must enter the name of the service exactly as it appears above. For example, the space is required.
ASCII Service Name	Enter a name for the service in ASCII characters. This name is displayed on a phone if the phone cannot display Unicode characters.
Service URL	Enter a URL that points to the service target .jad file. For example, enter a URL similar to the following URL: *http://209.165.200.225/WeatherForecast.jad* **Note** In order for the Weather Forecast service to work, the .jad file should be accessible at the URL entered here using a browser. **Note** In order for the Weather Forecast service to work, an HTTP Proxy server may be required.
Secure Service URL	Leave this field blank.
Service Category	Select **Java MIDlet**.
Service Type	Select **Standard IP Phone Service** to associate the service with the Application button on the phone.
Service Vendor	Enter **Cisco Systems, Inc.**
Service Version	Enter **1.0.0**.
Enable	Select this check box to enable the service.

Enterprise Subscription	Selecting this will install the service on all phones associated with this Cisco Unified Communications Manager. The end user will not be able to remove the service. If this is not checked the service can be subscribed on a phone-by-phone basis by either the system administrator or user. If Enterprise Subscription is checked, please add the Service Parameters in string format preceded by '?' and separated by '&' to the end of the Service URL. For example, using the sample URL above with no proxy, the full URL is: *http://209.165.200.225/WeatherForecast.jad?Temperature-Units=F&Default-City=San Jose, CA&HTTP-Proxy=false*

The following table lists the **Service Parameter Information** for the Weather Forecast MIDlet. Add each parameter by clicking the **New Parameter** button and entering the information below.

Parameter	Details	
Temperature-Units		
	Parameter Name	Enter **Temperature-Units**
	Parameter Display Name	Enter **Temperature-Units**
	Default Value	Enter **F** or **C** for Fahrenheit or Celsius, respectively.
	Parameter Description	A description visible to users when configuring their application.
	Parameter is Required	**Checked**.
	Parameter is a Password	**Not Checked**.
Default-City		
	Parameter Name	Enter **Default-City**
	Parameter Display Name	Enter **Default-City**
	Default Value	Enter a default city for users to see when the application is first launched.
	Parameter Description	A description visible to users when configuring their application.
	Parameter is Required	**Checked**.
	Parameter is a Password	**Not Checked**.

HTTP-Proxy	
	Parameter Name: Enter **HTTP-Proxy** Parameter Display Name: Enter **HTTP-Proxy** Default Value: Enter **true** if a proxy is need for the application to have Internet connectivity, **false** otherwise. Parameter Description: A description visible to users when configuring their application. Parameter is Required: **Checked**. Parameter is a Password: **Not Checked**.
HTTP-Proxy-Host	
	Parameter Name: Enter **HTTP-Proxy-Host** Parameter Display Name: Enter **HTTP-Proxy-Host** Default Value: Enter a proxy IP address for the application to use, blank if no proxy is needed. Parameter Description: A description visible to users when configuring their application. Parameter is Required: **Checked**. Parameter is a Password: **Not Checked**.
HTTP-Proxy-Port	
	Parameter Name: Enter **HTTP-Proxy-Port** Parameter Display Name: Enter **HTTP-Proxy-Port** Default Value: Enter a proxy port for the application to use, blank if no proxy is needed. Parameter Description: A description visible to users when configuring their application. Parameter is Required: **Checked**. Parameter is a Password: **Not Checked**.

Quick Calculator

The following table lists the **Service Information** for the Quick Calculator MIDlet.

Field	Setting
Service Name	Enter **Quick Calculator** **Note** You must enter the name of the service exactly as it appears above. For example, the space is required.
ASCII Service Name	Enter a name for the service in ASCII characters. This name is displayed on a phone if the phone cannot display Unicode characters.
Service URL	Enter a URL that points to the service target .jad file. For example, enter a URL similar to the following URL: *http://209.165.200.225/Quick Calculator.jad* **Note** In order for the service to work, the .jad file should be accessible at the URL entered here using a browser or FTP client.
Service Category	Select **Java MIDlet**
Service Type	Select **Standard IP Phone Service** to associate the service with the Application button on the phone.
Service Vendor	Enter **Cisco Systems, Inc.**
Service Version	Enter **1.0.0**
Enable	Select this check box to enable the service.
Enterprise Subscription	Selecting this will install the service on all phones associated with this Cisco Unified Communications Manager. The end user will not be able to remove the service. If this is not checked the service can be subscribed on a phone-by-phone basis by either the system administrator or user.

CHAPTER 2

Subscription of a MIDlet Service to an IP Phone

This chapter describes the process for subscribing an installed and configured MIDlet service to an IP Phone. This procedure is done by an administrator after finishing the steps in Chapter 1. These steps should be followed for each IP Phone where the service is to be used.

Note Each phone must be subscribed to the MIDlet service to use it. All phones may be subscribed at once by selecting *Enterprise Subscription* during installation in Chapter 1, or phones may be subscribed individually.

Note The minimum firmware release for MIDlet services on the Cisco Unified IP Phone 9971, 9951, or 8961 is 9.0(2). If the MIDlet is subscribed and opened on another model or firmware, the user will receive an error message.

Subscribe a Service

	Action
Step 1	Select **Device > Phone** in Cisco Unified Communications Manager Administration.
Step 2	Find and select the phone where the service is to be added.
Step 3	From the **Related Links** drop down, select **Subscribe/Unsubscribe Services**.
Step 4	Select **Go**.
Step 5	From the **Select a Service** drop down, select [**Weather Forecast**|**Quick Calculator**].
Step 6	Select **Next**, and then select **Subscribe**. The service is now added.

CHAPTER 3

Usage of the MIDlets by an End User

This chapter describes the basic usage of the MIDlets from an end-user point of view. The MIDlets are designed to be simple, so the steps listed here are the basic steps to get a user started.

The MIDlets are accessed from the Applications Menu. To display the Applications Menu, depress the applications button on the Cisco Unified IP Phone 9971, 9951, or 8961. The icons for the Quick Calculator and Weather Forecast MIDlets are displayed. To access the MIDlets, select the icon for the desired application.

Note The MIDlets accept entries and display values only in US-English. For the Weather Forecast Application, only the US-English names of cities and countries are accepted. For the Quick Calculator Application, a period (‘.’) is used as the decimal separator.

Weather Forecast

Add a Forecast Entry

	Action
Step 1	Type (using the numeric keys) a city name or zip code in the text field.
Step 2	Press **Add**.

Remove a Forecast Entry

	Action
Step 1	Select the forecast to remove via touch or using the arrow keys.
Step 2	Press **Remove**.

View a 5-Day Forecast for a City

	Action
Step 1	Select the forecast to remove via touch or using the arrow keys.
Step 2	Press **Details**.

Quick Calculator

Equation Solving

	Action
Step 1	Enter equations using the touch screen, numeric keys, or navigation buttons.
Step 2	Press the = key

Use of Square Root Function

	Action
Step 1	Enter the number or equation you wish to find the square root of.
Step 2	Press the √ key.

Use of Exponents

	Action
Step 1	Enter the base number of the equation.
Step 2	Press the ^ key.
Step 3	Enter the exponent.

Use of Negative Numbers

	Action
Step 1	Press the **(-)** key.
Step 2	Enter the number you wish to be negative.

Numeric Key Shortcuts

	Action
1	Press the ***** key to cycle between multiplication and addition operators.
2	Press the # key to cycle between division and subtraction operators.
3	A number before the '('parenthesis symbol will be interpreted as an implied multiplication step. For example, 2(1+2) will be interpreted as 2*****(1+2).

CHAPTER 4

Known Limitations of the MIDlets

This chapter describes the known limitations and issues present in version 1.0.0 of the Weather Forecast and Quick Calculator MIDlets.

Weather Forecast

- Maximum number of cities allowed is five.

  In order to maintain the loading time of the MIDlet, no more than five cities can be listed at one time.
- Forecast descriptions may be truncated to fit on the screen.
- Weather conditions may be delayed.
- Weather conditions are relative to the nearest observation point and not necessarily the location entered.

Quick Calculator

- All answers are rounded to 2 decimal places and entry is limited to 2 decimal places.
- Multiple consecutive operators are not allowed and are ignored.
- Operators immediately before a ‘)’ or following a ‘**(**’ are not allowed and are ignored.
- Consecutive decimals or more than one decimal per number are not allowed and are ignored.
- Consecutive negative signs are not allowed and are ignored.
- Square roots of negative numbers are not calculated and an error is returned.
- Very large or small numbers may be displayed in scientific notation. An example of this is the number 1,000,000,000 showing as 1.0E9.