

Provisioning Procedure by using multiple configuration files

(KX-UT1xx series/248)

No. 11-004

May 25 , 2012

Ver.1.1

Panasonic Corporation

Abstract about this document

This document describes about overview of provisioning process and show how to do provisioning by using multiple configuration files.

Revision history

Date	Version	Revision	Firmware version
Jun. 22, 2011	Ver. 1.0	Initial Release	All versions
May 25, 2011	Ver. 1.1	Add description about UT248	All versions

Outline

- 1) Basic Provisioning Flow including Pre Provisioning
- 2) Explanation about type and priority of configuration files
- 3) Configuration Procedure for Provisioning by using WEB interface.

Basic Provisioning Sequence with Pre Provisioning

STEP1 DHCP

When you connect UT1xx/248 to the network, the UT1xx/248 Gets TFTP server Address (Option66) from DHCP

STEP2 Pre Provisioning

UT1xx/248 automatically download the Configuration file "KX-UTxxx.cfg" from TFTP sever.

Configuration file name "KX-UTxxx.cfg" is specified by each model name.

STEP3 Reboot

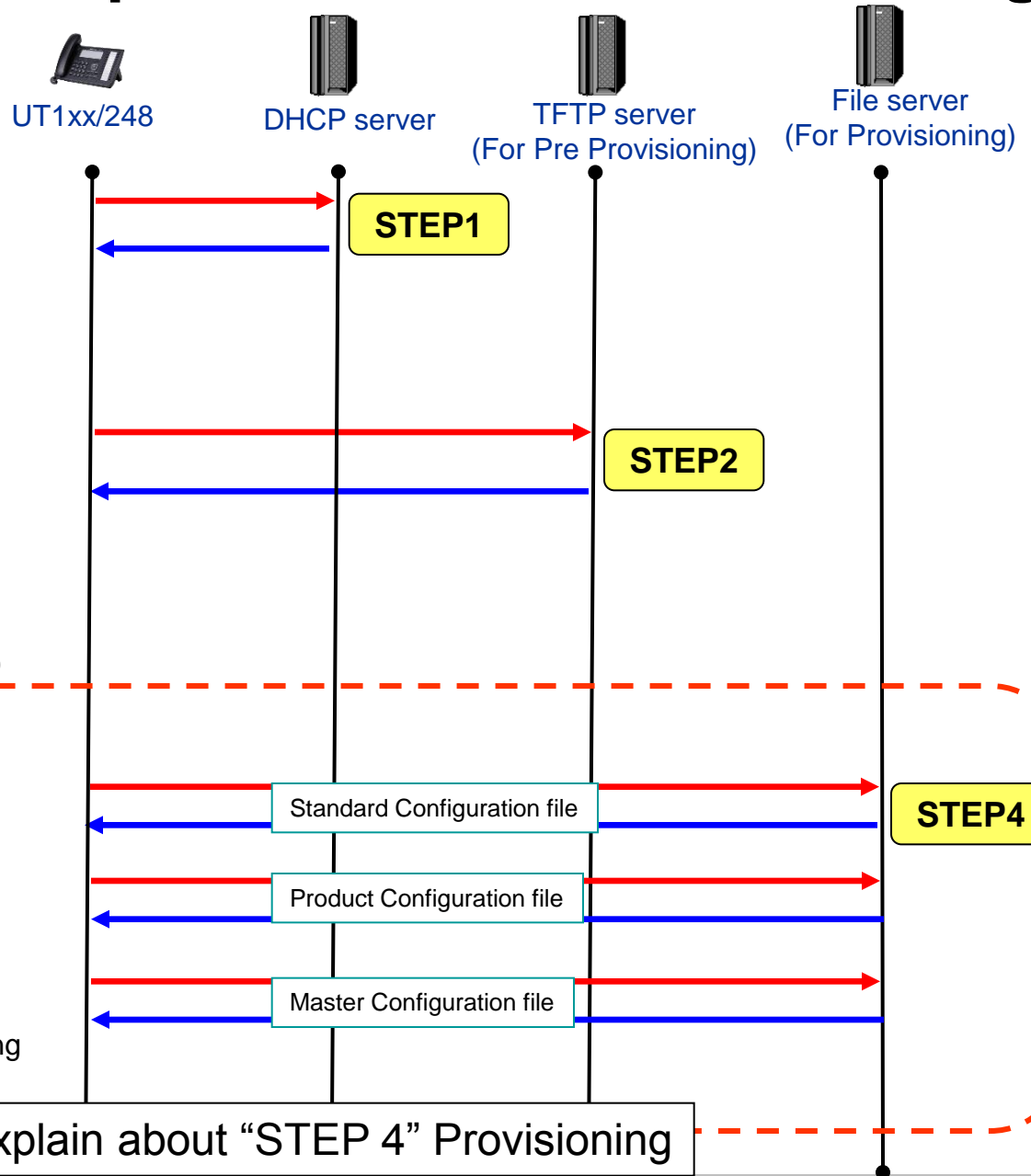
UT1xx/248 will now reboot
(If `PT66_REBOOT="Y"` exists in TFTP configuration file)

STEP4 Provisioning

After rebooting the UT1xx/248 will automatically download the 1 to 3 types of Configuration files depends on the case.

- Master Configuration File
- Product Configuration File
- Standard Configuration File

This address can be specified by Pre Provisioning process or WEB interface or by each file.



Types of Configuration file for Provisioning

- There are three types of Configuration file.

Type	Usage
Master configuration file	<ul style="list-style-type: none">● Common setting for all units<ul style="list-style-type: none">• SIP server address• IP addresses of the DNS• IP addresses of the NTP (Network Time Protocol) servers● Example of the configuration file's URL: http://prov.example.com/Panasonic/ConfigCommon.cfg
Product configuration file	<ul style="list-style-type: none">● Common setting for same model units Default setting of the privacy mode● Used by all the units that have the same model name● Example of the configuration file's URL: http://prov.example.com/Panasonic/Config{MODEL}.cfg
Standard configuration file <div data-bbox="131 1122 484 1286" style="border: 1px solid black; padding: 5px; margin-top: 10px;"><p>This is the file for detailed information.</p></div>	<ul style="list-style-type: none">● Setting for each unit<ul style="list-style-type: none">• Phone number• User ID• Password, etc.● Example of the configuration file's URL: http://prov.example.com/Panasonic/Config{MAC}.cfg

Can be configured by using only one file of these three files.


Priority of Settings

■ Setting priority

- Configured by different configuration methods: provisioning, Web user interface programming, etc.
- Settings configured later override previous settings
- **Settings by Web are highest priority, can be changed by Web only. If configuration file is used after Settings by Web, Web settings should be reset.**

Priority

Low



High

Setting Order	Priority	Setting Method
1	4	The factory default settings for the unit
2	3	Pre-provisioning with the configuration file
3	2-3	Provisioning with the master configuration file
	2-2	Provisioning with the product configuration file
	2-1	Provisioning with the standard configuration file
4	1	Settings configured from the Web user interface or the phone user Interface

*lower numbers indicate higher priority

How to set Provisioning Information from WEB

Setting vary depend on how many configuration file you use.

Case 1 : Provisioning by only 1 configuration file (Standard Configuration File)

If you use only 1 file, then you can put URL into “Standard” Configuration File in WEB setting.

Case 2 : Provisioning by 2 files (Master and Standard / Product and Standard)

If you use 2 configuration files, then you can put URL into “Master” or “Product” configuration file in WEB setting.

And in configuration file, you need to specify the URL of “Standard” configuration file.

Case 3 : Provisioning by 3 files (Master, Product and Standard)

If you use 3 configuration files, then you can put URL into “Master” configuration file in WEB setting.

And in configuration file, you need to specify the URL of “Product” and “Standard” configuration file in WEB setting.

From next page, detailed step is described

How to set Provisioning Information from WEB (Case1 : With 1 file)

Setting Steps

Step 1. Put standard configuration file with all parameters into provisioning server.

provisioning server



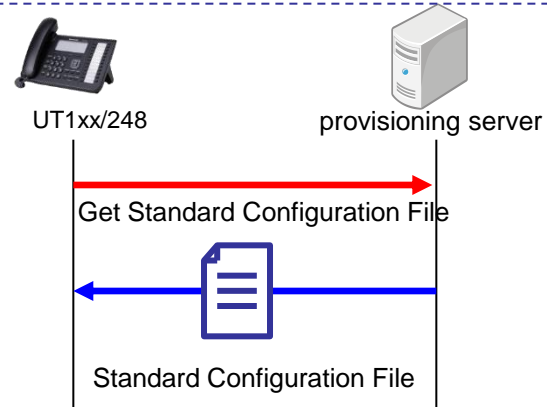
Standard Configuration File

Step 2. Enter Standard File URL into Provisioning Maintenance setting in WEB.

Provisioning Maintenance	
Enable Provisioning	<input checked="" type="radio"/> Yes <input type="radio"/> No
Standard File URL	http://192.168.0.10/Config[MAC].cfg
Product File URL	
Master File URL	
Cyclic Auto Resync	<input type="radio"/> Yes <input checked="" type="radio"/> No
Resync Interval	10080 minute(s) [1-40320]
Header Value for Resync Event	check-sync

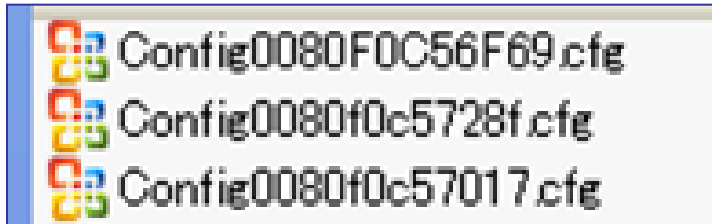
Save Cancel

Step 3. Phone get Standard File from provisioning server from address input into WEB setting.



How to set Provisioning Information from WEB (Case1 : With 1 file)

Step 1. Please put configuration file (Standard File) under server.



Config{MAC}.cfg : for each unit setting file like account name, password and SIP Server address.

**{MAC} indicate actual MAC address of phone

Example of “Config{MAC}.cfg” for Standard file.

```
# PCC Standard Format File # DO NOT CHANGE THIS LINE!
# This is a simplified sample configuration file.
#####
# Configuration Setting #
#####
# URL of this configuration file
CFG_STANDARD_FILE_PATH="ftp://192.168.0.10/Config{MAC}.cfg"
#####
# SIP Settings #
# Suffix "_1" indicates this parameter is for "line 1". #
#####
# IP Address or FQDN of SIP registrar server, proxy server
SIP_RGSTR_ADDR_1="registrar.example.com"
SIP_PRXY_ADDR_1="proxy.example.com"
# IP Address or FQDN of SIP presence server
SIP_PRSNC_ADDR_1="presenceserver.example.com"
# Enables DNS SRV lookup
SIP_DNSSRV_ENA_1="Y"
# ID, password for SIP authentication
SIP_AUTHID_1="SIP_User"
SIP_PASS_1="SIP_Password"
# Some Timer Settings #
# Expiration time of SIP registration; "1 hour"
REG_EXPIRE_TIME_1="3600"
# Disables SIP Session Timer (RFC 4028)
SIP_SESSION_TIME_1="0"
```

Please refer administrator guide for more detailed about each parameter

How to set Provisioning Information from WEB (Case1 : With 1 file)

Step 2. After you log in to WEB setting menu by administrator account, Please go to [Maintenance] -> [Provisioning Maintenance] menu.

KX-UT136 Status Network System VoIP Telephone **Maintenance**

Web Port Close

Maintenance

- Firmware Maintenance
- Local Firmware Update
- Provisioning Maintenance**
- Management Server
- Reset to Defaults
- Restart

Firmware Maintenance

Enable Firmware Update	<input checked="" type="radio"/> Yes <input type="radio"/> No
Update Type	<input checked="" type="radio"/> Automatic <input type="radio"/> Manual
Firmware File URL	<input type="text"/>

Save Cancel

Please input file path of configuration file for “Standard” where you put and set “Yes” for [Enable Provisioning]. And press [save] button.

Provisioning Maintenance

Enable Provisioning	<input checked="" type="radio"/> Yes <input type="radio"/> No
Standard File URL	<input type="text" value="http://192.168.0.10/Config[MAC].cfg"/>
Product File URL	<input type="text"/>
Master File URL	<input type="text"/>
Cyclic Auto Resync	<input type="radio"/> Yes <input checked="" type="radio"/> No
Resync Interval	<input type="text" value="10080"/> minute(s) [1-40320]
Header Value for Resync Event	<input type="text" value="check-sync"/>

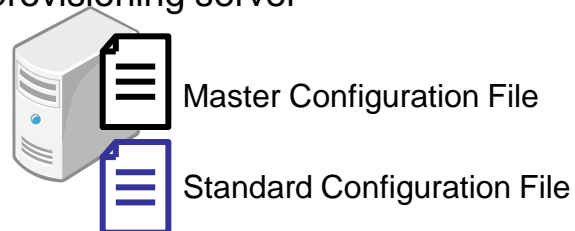
Save Cancel

How to set Provisioning Information from WEB (Case2 : With 2 files)

Setting Steps

Step 1. Put Master configuration file with Standard File URL and Standard configuration file with each unit parameters into provisioning server.

provisioning server

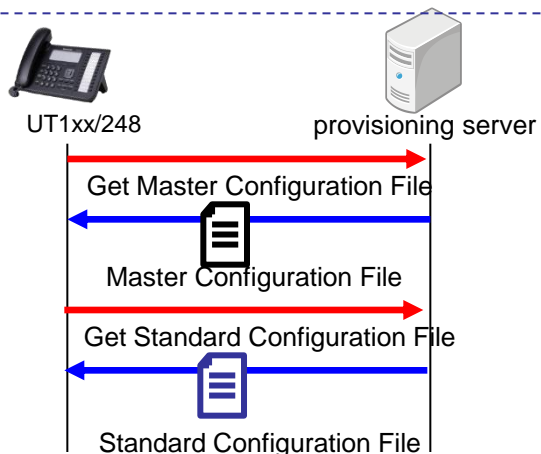


Step 2. Enter Master File URL into Provisioning Maintenance setting in WEB.

Provisioning Maintenance	
Enable Provisioning	<input checked="" type="radio"/> Yes <input type="radio"/> No
Standard File URL	<input type="text"/>
Product File URL	<input type="text"/>
Master File URL	http://192.168.0.10/Configcommon.cfg
Cyclic Auto Resync	<input type="radio"/> Yes <input checked="" type="radio"/> No
Resync Interval	10080 minute(s) [1-40320]
Header Value for Resync Event	check-sync
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

Step 3. Phone get Master File from provisioning server from address input into WEB setting.

And then, Phone get Standard File from provisioning server by using address described in Master File.



How to set Provisioning Information from WEB (Case2 : With 2 files)

Step 1. Please put configuration file under server.



ConfigCommon.cfg : for common setting across all phones, like SIP server address.

Config{MAC}.cfg : for each unit setting file like account name, password.

**{MAC} indicate actual MAC address of phone

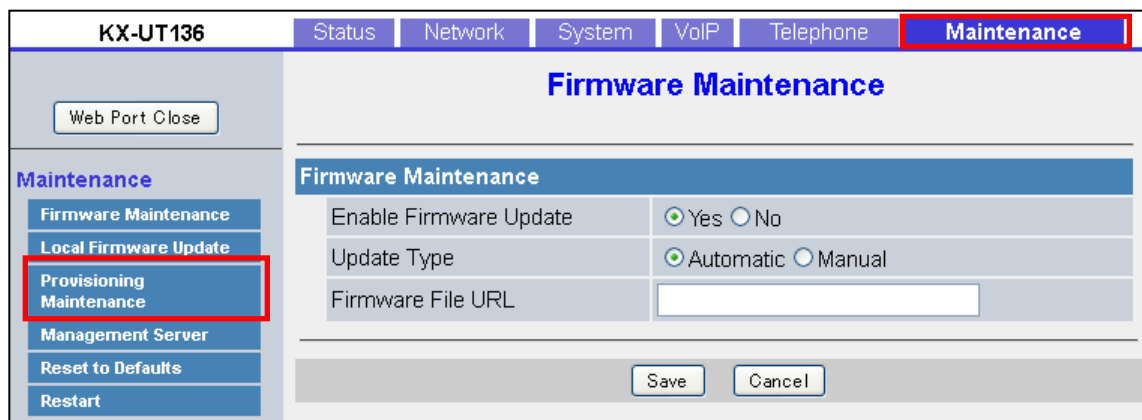
Example of “ConfigCommon.cfg” for Master file.

```
# PCC Standard Format File # DO NOT CHANGE THIS LINE!  
## Provisioning Settings  
PROVISION_ENABLE="Y"  
CFG_STANDARD_FILE_PATH="tftp://192.168.0.10/Config{MAC}.cfg"  
  
## SIP Settings  
SIP_PRXY_ADDR_1="192.168.0.10"  
SIP_RGSTR_ADDR_1="192.168.0.10"  
SIP_SVCDOMAIN_1="192.168.0.10"
```

There is a file path for Standard file. So that phone can know the address of Standard file after download Master file.

How to set Provisioning Information from WEB (Case2 : With 2 files)

Step 2. After you log in to WEB setting menu by administrator account, Please go to [Maintenance] -> [Provisioning Maintenance] menu.

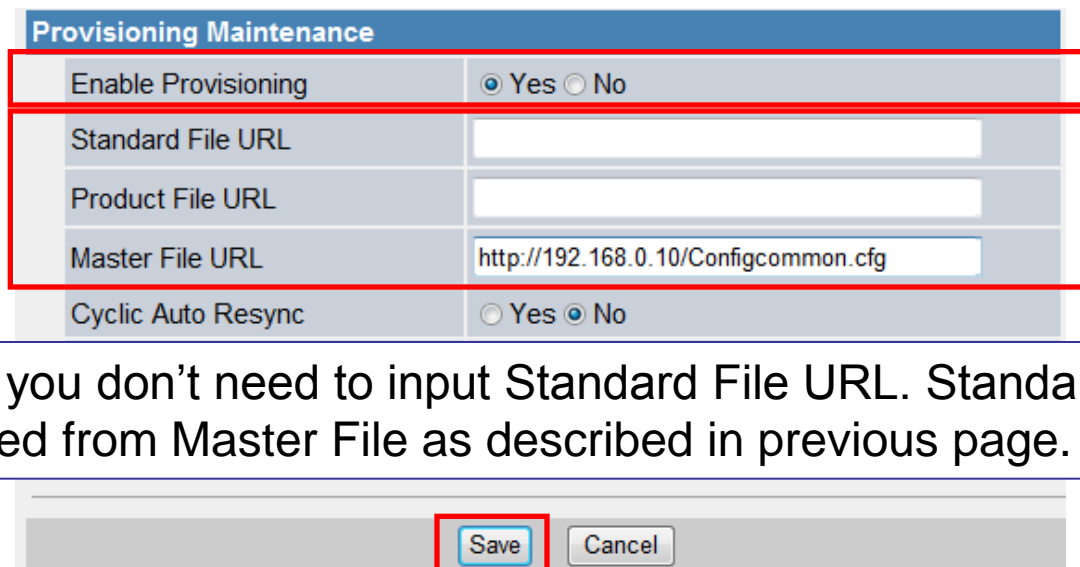


The screenshot shows the KX-UT136 web interface. At the top, there are navigation tabs: Status, Network, System, VoIP, Telephone, and Maintenance (highlighted in red). Below the tabs is a 'Web Port Close' button. On the left, a 'Maintenance' menu is visible with options: Firmware Maintenance, Local Firmware Update, Provisioning Maintenance (highlighted in red), Management Server, Reset to Defaults, and Restart. The main content area is titled 'Firmware Maintenance' and contains the following settings:

Enable Firmware Update	<input checked="" type="radio"/> Yes <input type="radio"/> No
Update Type	<input checked="" type="radio"/> Automatic <input type="radio"/> Manual
Firmware File URL	<input type="text"/>

At the bottom of the main content area are 'Save' and 'Cancel' buttons.

Please input file path of configuration for “Master” file where you put and set “Yes” for [Enable Provisioning]. And press [save] button.



The screenshot shows the 'Provisioning Maintenance' web interface. The 'Enable Provisioning' field is set to 'Yes' (radio button selected). The 'Master File URL' field contains the text 'http://192.168.0.10/Configcommon.cfg'. The 'Standard File URL' and 'Product File URL' fields are empty. The 'Cyclic Auto Resync' field is set to 'No' (radio button selected). At the bottom, the 'Save' button is highlighted in red.

Enable Provisioning	<input checked="" type="radio"/> Yes <input type="radio"/> No
Standard File URL	<input type="text"/>
Product File URL	<input type="text"/>
Master File URL	http://192.168.0.10/Configcommon.cfg
Cyclic Auto Resync	<input type="radio"/> Yes <input checked="" type="radio"/> No

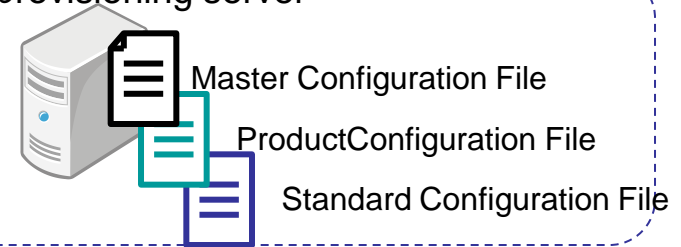
Note : you don't need to input Standard File URL. Standard File URL is obtained from Master File as described in previous page.

How to set Provisioning Information from WEB (Case3 : With 3 files)

Setting Steps

Step 1. Put Master configuration file with Standard/Product File URL and Standard configuration file with each unit parameters into provisioning server.

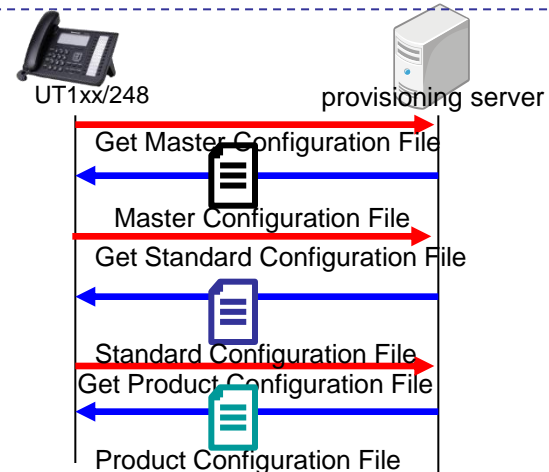
provisioning server



Step 2. Enter Master File URL into Provisioning Maintenance setting in WEB.

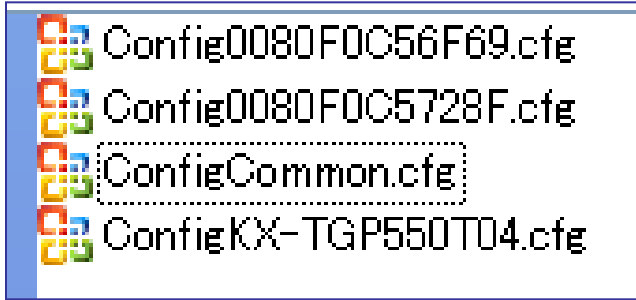
Provisioning Maintenance	
Enable Provisioning	<input checked="" type="radio"/> Yes <input type="radio"/> No
Standard File URL	<input type="text"/>
Product File URL	<input type="text"/>
Master File URL	<input type="text" value="http://192.168.0.10/Configcommon.cfg"/>
Cyclic Auto Resync	<input type="radio"/> Yes <input checked="" type="radio"/> No
Resync Interval	10080 minute(s) [1-40320]
Header Value for Resync Event	<input type="text" value="check-sync"/>
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

Step 3. Phone get Master File from provisioning server from address input into WEB setting. And then, Phone get Product / Standard File from provisioning server by using address described in Master File.



How to set Provisioning Information from WEB (Case3 : With 3 files)

Step 1. Please put configuration file under server.



ConfigCommon.cfg : for common setting across all phones, like SIP server address.

Config{MODEL}.cfg for each model setting.

**{MODEL} indicate the model name of phone

Config{MAC}.cfg : for each unit setting file like account name, password.

**{MAC} indicate actual MAC address of phone

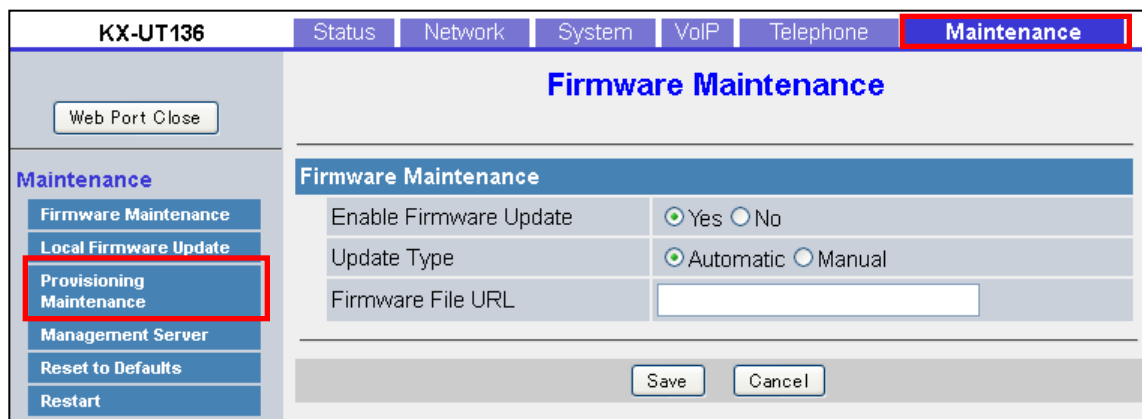
Example of “ConfigCommon.cfg” for Master file.

```
# PCC Standard Format File # DO NOT CHANGE THIS LINE!  
## Provisioning Settings  
PROVISION_ENABLE="Y"  
CFG_PRODUCT_FILE_PATH="tftp://192.168.0.10/Config{MODEL}.cfg"  
CFG_STANDARD_FILE_PATH="tftp://192.168.0.10/Config{MAC}.cfg"  
  
## SIP Settings  
SIP_PRXY_ADDR_1="192.168.0.10"  
SIP_RGSTR_ADDR_1="192.168.0.10"  
SIP_SVCDOMAIN_1="192.168.0.10"
```

There is a file path for Standard file and Product file. So that phone can know the address of Standard file and Product file after download Master file.

How to set Provisioning Information from WEB (Case3 : With 3 files)

Step 2. After you log in to WEB setting menu by administrator account, Please go to [Maintenance] -> [Provisioning Maintenance] menu.

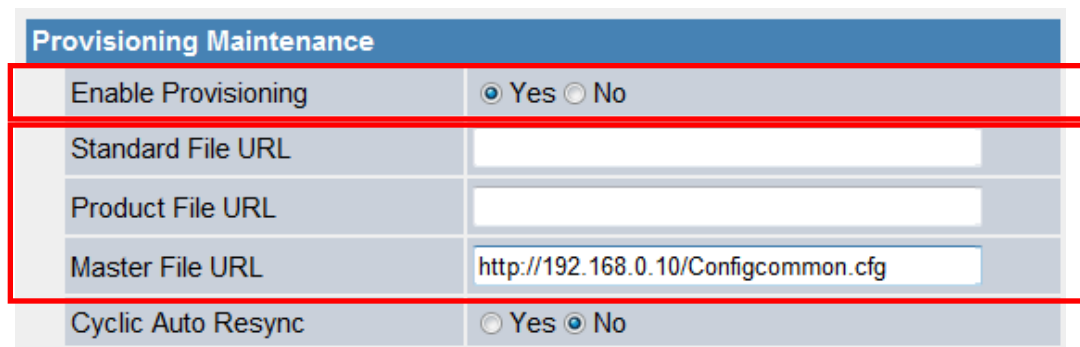


The screenshot shows the KX-UT136 web interface. At the top, there are navigation tabs: Status, Network, System, VoIP, Telephone, and Maintenance (highlighted in red). Below the tabs is a 'Web Port Close' button. On the left, a 'Maintenance' menu is visible with options: Firmware Maintenance, Local Firmware Update, Provisioning Maintenance (highlighted in red), Management Server, Reset to Defaults, and Restart. The main content area is titled 'Firmware Maintenance' and contains the following settings:

Enable Firmware Update	<input checked="" type="radio"/> Yes <input type="radio"/> No
Update Type	<input checked="" type="radio"/> Automatic <input type="radio"/> Manual
Firmware File URL	<input type="text"/>

At the bottom of the main content area are 'Save' and 'Cancel' buttons.

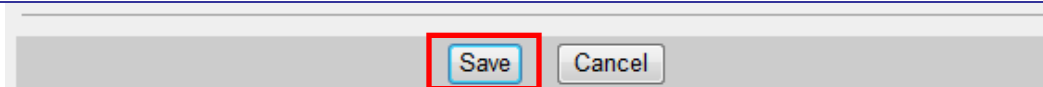
Please input file path of configuration for “Master” file where you put and set “Yes” for [Enable Provisioning]. And press [save] button.



The screenshot shows the 'Provisioning Maintenance' web interface. The 'Enable Provisioning' checkbox is checked (radio button selected). The 'Master File URL' field is populated with the value 'http://192.168.0.10/Configcommon.cfg'. The 'Standard File URL' and 'Product File URL' fields are empty. The 'Cyclic Auto Resync' checkbox is unchecked. The 'Save' button is highlighted with a red box.

Enable Provisioning	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Standard File URL	<input type="text"/>
Product File URL	<input type="text"/>
Master File URL	<input type="text" value="http://192.168.0.10/Configcommon.cfg"/>
Cyclic Auto Resync	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Note : you don't need to input Standard / Product File URL. Standard / Product File URL are obtained from Master File as described in previous page.



The screenshot shows the 'Save' and 'Cancel' buttons at the bottom of the Provisioning Maintenance page. The 'Save' button is highlighted with a red box.

Note : this procedure required if you'd like to clean all of setting via web menu before provisioning. And network setting will be back to default also. If you don't need clean all setting, then please ignore this step.

Please go to [Maintenance] -> [Reset to Defaults] menu.

KX-UT136 Status Network System VoIP Telephone **Maintenance**

Web Port Close

Maintenance

- Firmware Maintenance
- Local Firmware Update
- Provisioning Maintenance
- Management Server
- Reset to Defaults**
- Restart

Firmware Maintenance

Enable Firmware Update Yes No

Update Type Automatic Manual

Firmware File URL

Save Cancel

Please click [Reset Web Settings] to remove all settings.

KX-UT136 Status Network System VoIP Telephone **Maintenance**

Web Port Close

Maintenance

- Firmware Maintenance
- Local Firmware Update
- Provisioning Maintenance
- Management Server
- Reset to Defaults**
- Restart

Reset to Defaults

Reset Web Data

The Web data for this unit will be reset to its default values when you click [Reset Web Settings].

Reset Web Settings

How to access Web user interface

1. Confirm the IP address of KX-UT1xx/248.
 - 1-1 : [Setting] (Left soft key) → select [Information Display] → [Enter] → [Down] (joystick).
 - 1-2 : Confirm the IP address displayed on LCD.

2. Embedded Web.
 - 2-1 : [Setting] (Left soft key) → [#][5][3][4].
 - 2-2 : Select [On] → [Enter].

3. Access the Web user interface.
 - 3-1 : Open your Web browser.
 - 3-2 : Enter your KX-UT1xx/248 URL to Web browser (http://your KX-UT1xx/248 IP address) .
 - 3-3 : Enter Authentication ID and password and click “OK”.
(Default :ID=“admin”, password=“adminpass”)