

KX-NS Step by Step Guide

KX-NT/UT Phone Registration

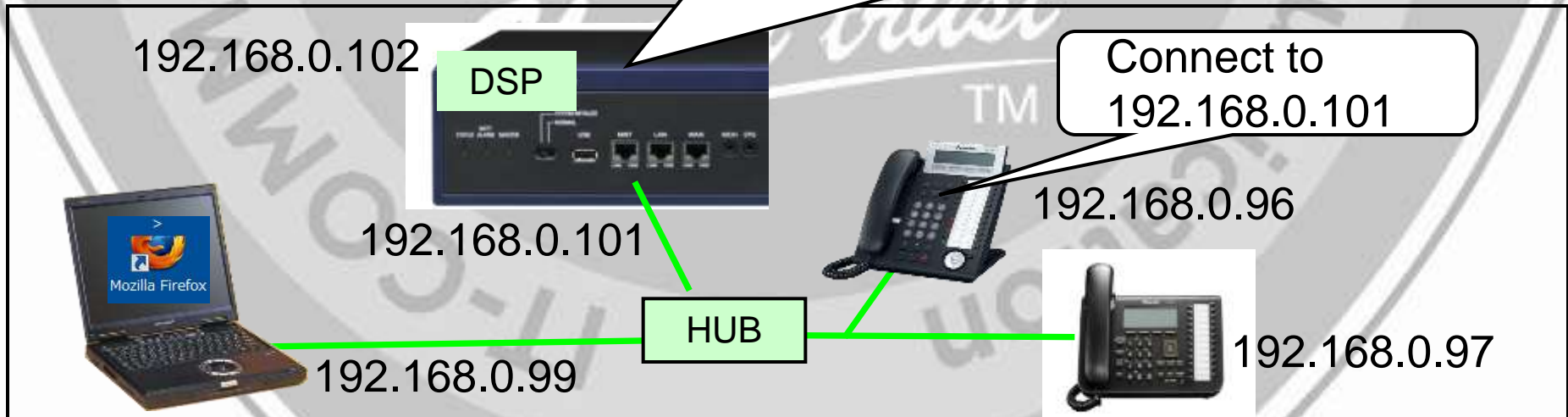
Specifications are subject to change without notice.

1. Overview

Operation of registration for KX-NTxxx and KX-UTxxx to KX-NS PBX is basically same as KX-NTxxx registration to KX-TDA/TDE/NCP.

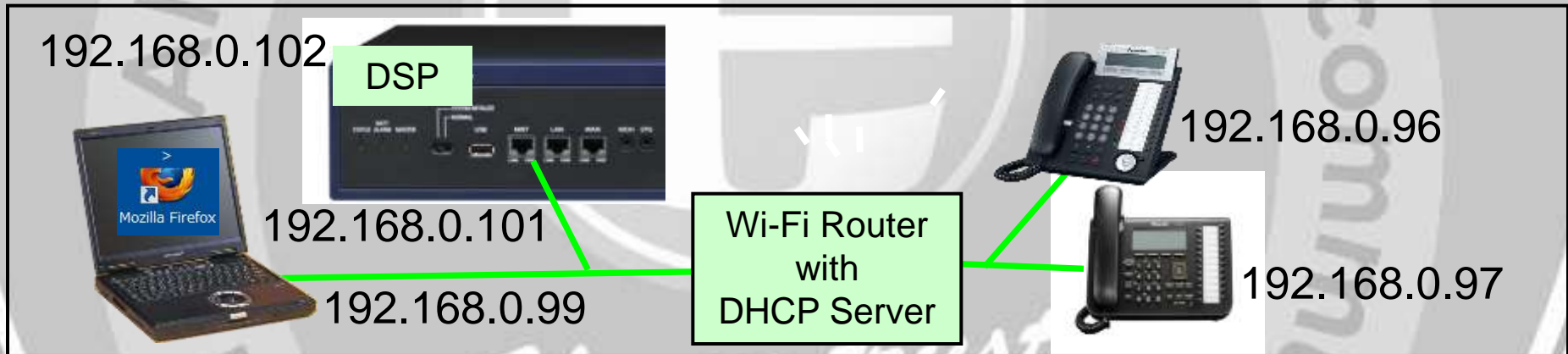
- MAC address of KX-NT/UT phone is assigned to KX-NS PBX.
- IP address of PBX is assigned to KX-NT/UT phone.

| Extension Number | Extension Name (20 characters) | Connection | Status | IP Phone Registration ID (MAC Address) | Current IP Address |
|------------------|--------------------------------|------------|------------|--|--------------------|
| | | ALL | ALL | | |
| 101 | | INS | Registered | 00:80:F0:FB:44:D0 | 192.168.0.111 |
| 102 | | INS | Registered | 00:80:F0:FC:C0:8C | 192.168.0.110 |
| 103 | | INS | Registered | 00:80:F0:F7:FE:99 | 192.168.0.112 |

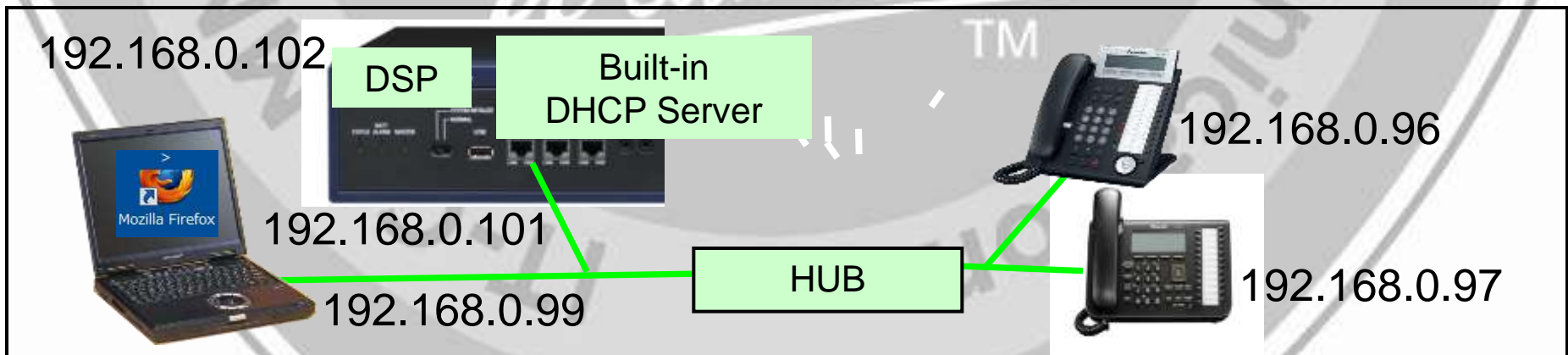


2. DHCP Server

Network with DHCP server can provide IP address to PC, IP phone and VoIP DSP. Wi-Fi router is useful for demo with software SIP phone in smart-phone. KX-NS PBX also supports built-in DHCP server function thorough KX-NS PBX LAN port.

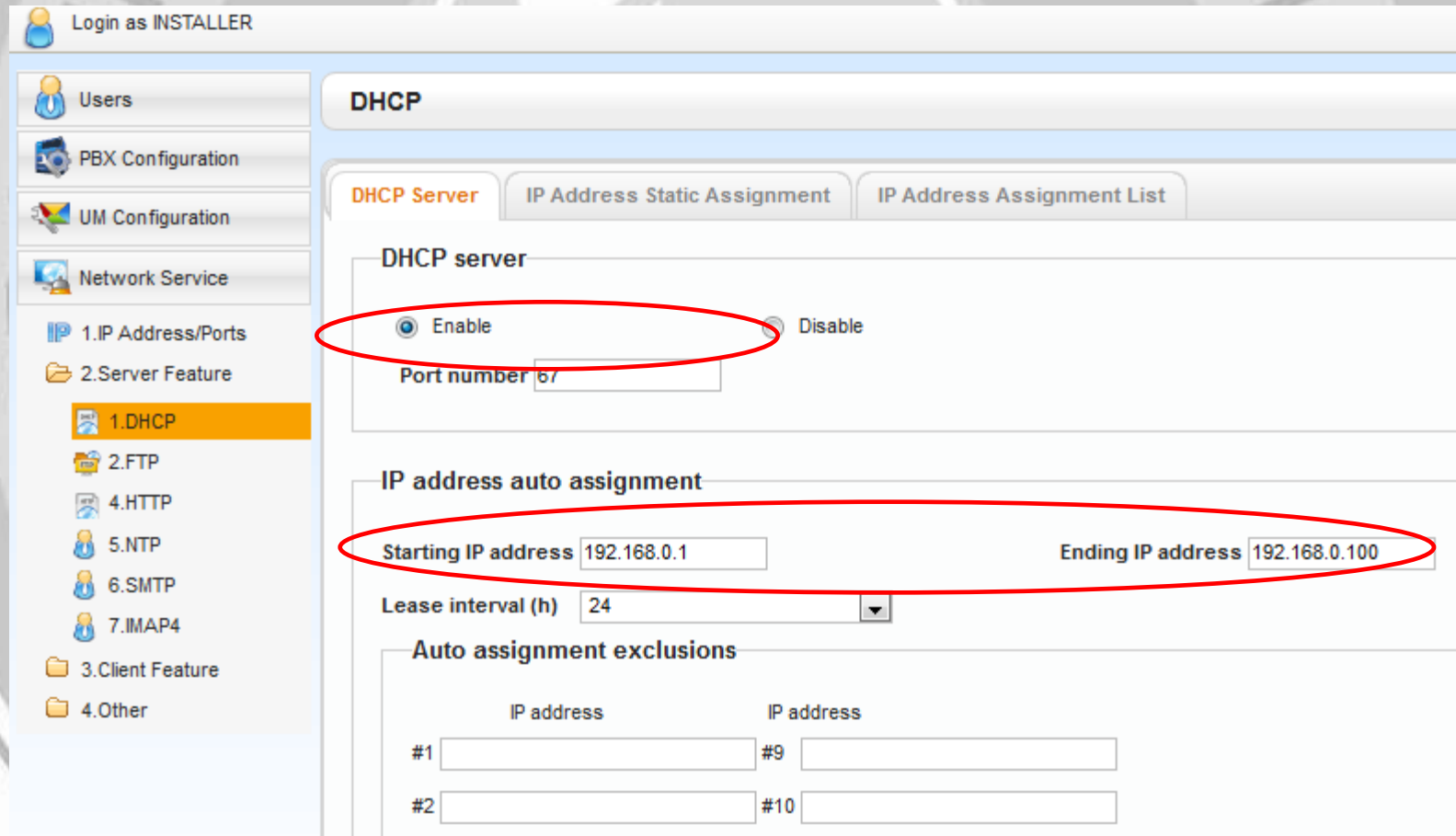


or



3. Built-in DHCP Server

Programming is required to enable built-in DHCP server function for LAN port. If customer network has DHCP server, this setting should be disabled.



DHCP server function of KX-NS1000 MNT port is always enabled.



Chapter 1

Manual Registration

11. Select Virtual Cabinet.

The screenshot shows the 'Slot' configuration page in the Panasonic PBX web interface. The left sidebar lists configuration categories, with '1. Slot' selected. The main area has tabs for 'System Property', 'Activation Key', 'IP Phone Registration', 'VoIP Property', and 'UM Property'. Below these are two tables for card selection:

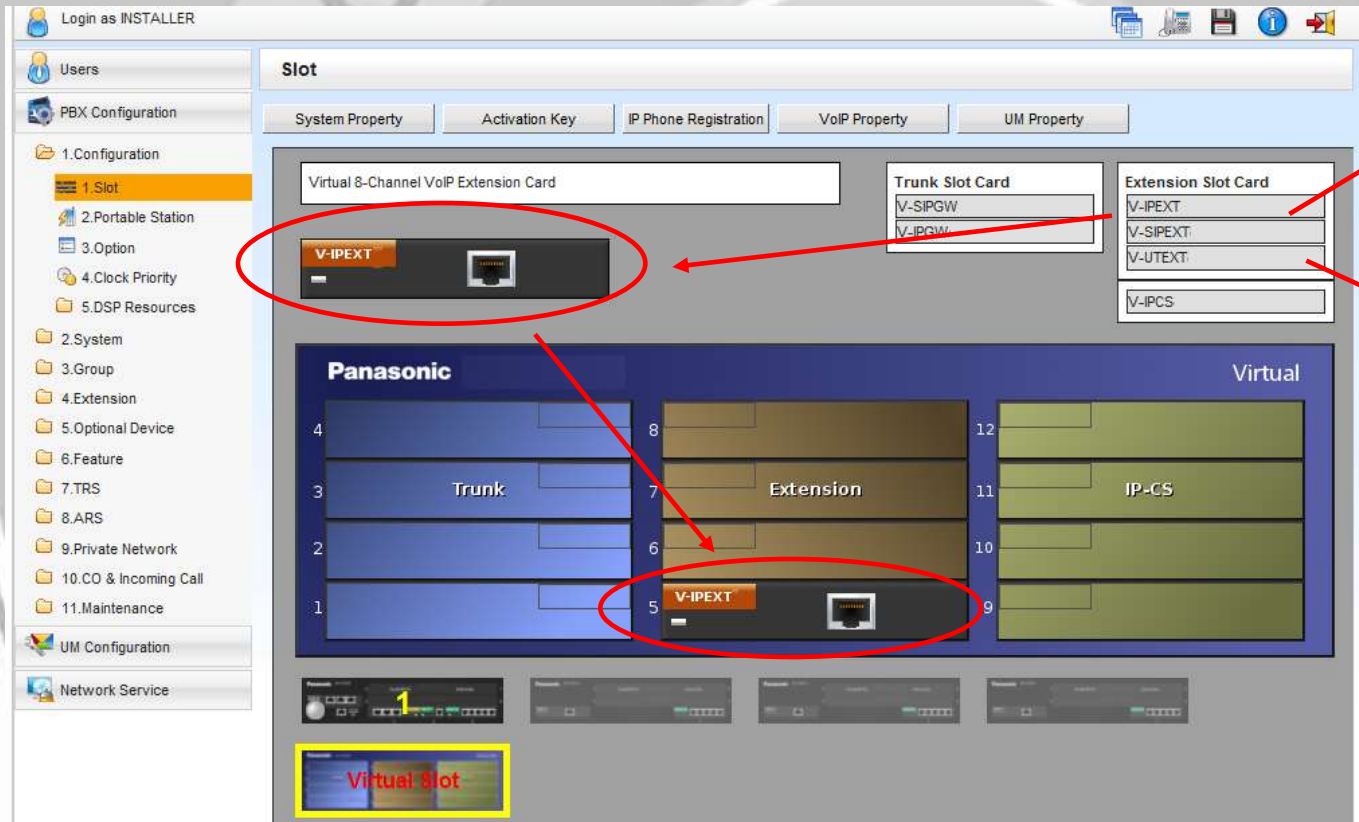
| Trunk Slot Card | |
|-----------------|--|
| LCOT6 | |
| PRI30 | |
| E1 | |
| DPH2 | |

| Extension Slot Card | |
|---------------------|--|
| MCSLC16 | |
| MCSLC8 | |
| DLC16 | |
| DLC8 | |
| DHLC4 | |

Below the tables is a diagram of a 'Panasonic Basic' cabinet with slots 1-7. Slot 1 is labeled 'EXP-M'. Slots 2-3 are labeled 'LCOT6' and 'DLC2'. Slots 4-5 are labeled 'Trunk/DPH2'. Slots 6-7 are labeled 'Extension' and 'MCSLC16'. A yellow box highlights a 'Virtual Slot' button at the bottom left, and a red circle highlights the 'Virtual Slot' button in the bottom right screenshot.

The screenshot shows the 'NS1000 Web Maintenance Console' interface. The 'Slot' configuration page is displayed, with the 'Virtual' shelf selected under the 'Select Shelf' dropdown. The 'Virtual' option is circled in red. Other options include 'Physical', 'Legacy-GW1', and 'Legacy-GW2'. Below the dropdown are buttons for 'Refresh', 'Close', 'Summary', 'Activation Key', and 'IP Phone Registration'. At the bottom, there are buttons for 'System Property', 'Site Property', 'UM Card Property', and 'UM Port Property'.

12. Install Virtual IP Card.



For KX-NTxxx

For KX-UTxxx

Virtual IP card can be registered to slave unit of KX-NS1000.



13. Select NT/UT Registration.

For KX-NTxxx

For KX-UTxxx

The screenshot shows the 'Slot' configuration page in a PBX management application. The left sidebar contains a navigation tree with categories like 'Users', 'PBX Configuration', and 'UM Configuration'. The main area has tabs for 'System Property', 'Activation Key', 'IP Phone Registration', 'VoIP Property', and 'UM Property'. The 'IP Phone Registration' tab is active, showing options for 'IP-PT', 'SIP-MLT', 'Standard SIP Phone', and 'Option'. The 'SIP-MLT' option is circled in red. Two red arrows originate from this circle: one points to a green box labeled 'For KX-NTxxx' and the other points to a green box labeled 'For KX-UTxxx'. Below the registration options are sections for 'Virtual 8-Channel VoIP Extension Card', 'Trunk Slot Card', and 'Extension Slot Card'. A large 'Panasonic Virtual' slot configuration grid is visible, with columns for 'Trunk', 'Extension', and 'IP-CS'. A 'V-IPEXT' icon is present in the 'Extension' column. At the bottom, a 'Virtual Slot' label is highlighted with a yellow box.

14. Click [Registration].

Port Property - Virtual IP Extension

Registration De-registration Forced De-registration

Main Option Voice Secondary Setting Remote Place

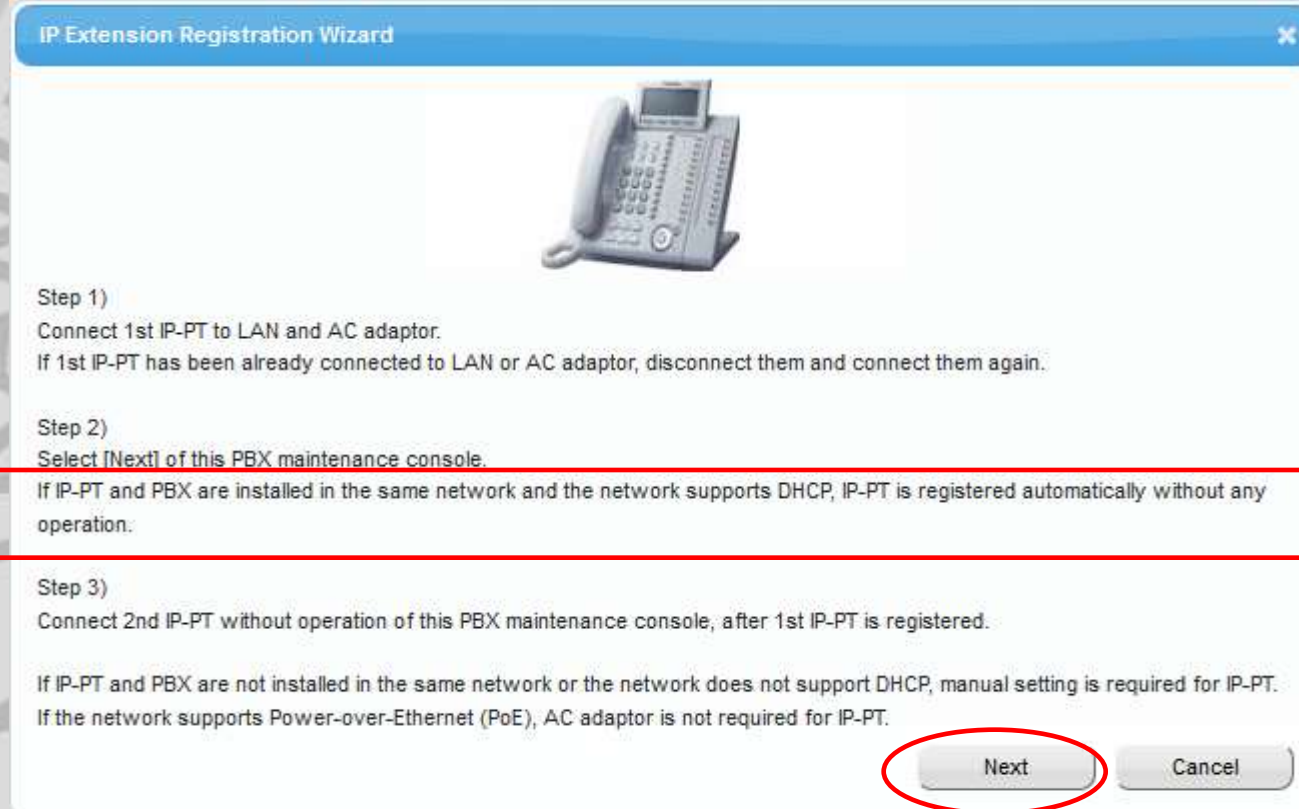
| No. | Shelf | Slot | Port | Extension Number | Extension Name (20 characters) | Connection | Status | IP Phone Registration ID (MAC Address) | Current IP Address |
|-----|---------|------|------|------------------|--------------------------------|------------|--------|--|--------------------|
| | ALL | | | | | ALL | ALL | | |
| 1 | Virtual | 47 | 1 | 101 | Mike Smith | Fault | None | 00:00:00:00:00:00 | 0.0.0.0 |
| 2 | Virtual | 47 | 2 | 102 | Susan Green | Fault | None | 00:00:00:00:00:00 | 0.0.0.0 |
| 3 | Virtual | 47 | 3 | 103 | Tom White | Fault | None | 00:00:00:00:00:00 | 0.0.0.0 |
| 4 | Virtual | 47 | 4 | 104 | | Fault | None | 00:00:00:00:00:00 | 0.0.0.0 |
| 5 | Virtual | 47 | 5 | 105 | | Fault | None | 00:00:00:00:00:00 | 0.0.0.0 |

Extension number is assigned automatically when virtual IP card is installed.

15. Select Extension Number to register.

The screenshot displays the 'IP Extension Registration Wizard' window. On the left is a navigation pane with 'PBX Configuration' selected, and a sub-menu where '1. Slot' is highlighted. The main area is divided into two panes: 'Available Extension Number' and 'Selected Extension Number for Registration'. The 'Available' list contains extensions 103 through 127, with '105 : Tom White' selected. The 'Selected' list contains '101 : Mike Smith' and '102 : Susan Green'. Between the panes are two buttons: a right-pointing arrow (circled in red) and a left-pointing arrow. At the bottom right, the 'Next' button is also circled in red. The status bar at the bottom shows 'Page 1 of 2' and a page number '20'.

16. Click [Next] and connect KX-NT/KX-UT phone.



If IP address of destination PBX has been assigned to KX-NTxxx already, new IP address of destination PBX has to be input manually.
Use KX-NTxxx after de-registration from other PBX for demo.
If network or KX-NS PBX does not support DHCP, IP address of KX-NTxxx has to be registered manually.

17. Registration starts.

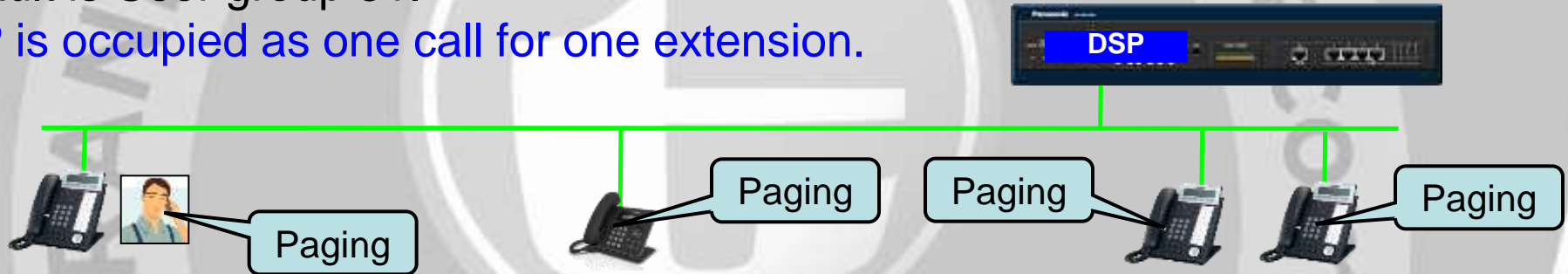
The screenshot shows a software interface with a sidebar on the left and a main window on the right. The sidebar contains a tree view of configuration categories: Users, PBX Configuration, and UM Configuration. Under PBX Configuration, there are sub-categories like 1. Configuration, 2. System, 3. Group, etc. The main window is titled 'IP Extension Registration Wizard' and displays 'Registration Executing' in large red text. Below this is a table with three rows of data. The first row shows extension 101 for Mike Smith with a green checkmark. The second row shows extension 102 for Susan Green. The third row shows extension 105. A 'Stop' button is located at the bottom right of the wizard window.

| Index | Extension | Name | Status |
|-------|-----------|-------------|--------|
| 1 | 101 | Mike Smith | ✓ |
| 2 | 102 | Susan Green | |
| 3 | 105 | | |

18. Paging over KX-NT/KX-UT phone

Paging over KX-NT/UT phone is not allowed by default. User group 1 (Paging group 1) has to be assigned to extension for KX-NT/UT. Default is User group 31.

DSP is occupied as one call for one extension.



*33 – Paging group number (01)

The screenshot shows the 'Extension Settings' configuration page. The table below lists the settings for six extensions. Extension 103 is highlighted in yellow. A red circle highlights the 'User Group' dropdown for extension 103, which is set to 31. A red arrow points from the text 'User Group 1' to this dropdown.

| No. | Extension Number | Extension Name (20 characters) | Site | Shelf | Slot | Port | Port Type | Telephone Type | User Group |
|-----|------------------|--------------------------------|------|---------|------|------|-----------|----------------|------------|
| 1 | 101 | | 1 | 1 | 1 | 1 | SLT | No Connection | 1 |
| 2 | 102 | | 1 | 1 | 1 | 2 | SLT | No Connection | 1 |
| 3 | 103 | | 1 | Virtual | 47 | 1 | IP-EXT | No Connection | 31 |
| 4 | 104 | | 1 | Virtual | 47 | 2 | IP-EXT | No Connection | 31 |
| 5 | 105 | | 1 | Virtual | 47 | 3 | IP-EXT | No Connection | 31 |
| 6 | 106 | | 1 | Virtual | 47 | 4 | IP-EXT | No Connection | 31 |

User Group 1



Chapter 2

Easy Registration using Easy Setup

21. Virtual IP Card Installation

Virtual IP card can be installed during Easy Setup Wizard also.

Easy Setup Wizard

1 Date & Time
2 Numbering
3 Manager / Operator
4 Trunk
5 LAN
6 **VoIP (Ext)**

VoIP (Ext)

Number of IP Extensions

| | Number of IP Extensions (Max) | | Number of cards (Max 4) |
|------------|-----------------------------------|----------|----------------------------|
| IP-PT (NT) | 4 | V-IPEXT | 1 |
| UT/UDT | 0 | V-UTEEXT | 0 |
| SIP-Phone | 0 | V-SIPEXT | 0 |
| Total | 4 | | 1 |

IP Terminal Registration Mode:

- Manual
- Full Automatic
- Extension Number Input

DHCP Server

- Disable
- Enable

Starting IP address Ending IP address

Previous Finish Close

22. Automatic IP Phone Registration

IP phone can be registered anytime without Step 13 to 17 when “Full Automatic” is selected.

Easy Setup Wizard

1 Date & Time
2 Numbering
3 Manager / Operator
4 Trunk
5 LAN
6 VoIP (Ext)

VoIP (Ext)

Number of IP Extensions

| | Number of IP Extensions (Max) | | Number of cards (Max 4) |
|------------|-----------------------------------|----------|----------------------------|
| IP-PT (NT) | 4 | V-IPEXT | 1 |
| UT/UDT | 0 | V-UTEXT | 0 |
| SIP-Phone | 0 | V-SIPEXT | 0 |
| Total | 4 | | 1 |

IP Terminal Registration Mode:

- Manual
- Full Automatic
- Extension Number Input

DHCP Server

- Disable
- Enable

Starting IP address Ending IP address

Previous Finish Close

23. DHCP Server

Built-in DHCP server function can be installed during Easy Setup Wizard also.

Easy Setup Wizard

1 Date & Time
2 Numbering
3 Manager / Operator
4 Trunk
5 LAN
6 VoIP (Ext)

VoIP (Ext)

Number of IP Extensions

| | Number of IP Extensions (Max) | | Number of cards (Max 4) |
|------------|-----------------------------------|----------|----------------------------|
| IP-PT (NT) | 4 | V-IPEXT | 1 |
| UT/UDT | 0 | V-UTEXT | 0 |
| SIP-Phone | 0 | V-SIPEXT | 0 |
| Total | 4 | | 1 |

IP Terminal Registration Mode:

- Manual
- Full Automatic
- Extension Number Input

DHCP Server

- Disable
- Enable

Starting IP address Ending IP address

Previous Finish Close

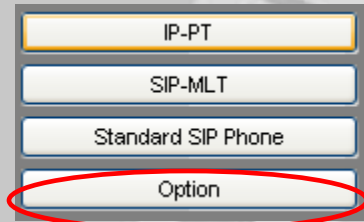
24. KX-NT Registration : Extension Input mode

Extension input mode is also available for KX-NT phone.

| IP Terminal Registration Mode | | | |
|--|--|--|---|
| | <input type="radio"/> Manual | <input checked="" type="radio"/> Full Automatic | <input type="radio"/> Extension Input |
| IP-PT KX-NTxxx | Same as NCP Phone registration is available during IP phone registration mode is activated for PBX using Web-MC manually . Extension number input is NOT required by user . Extension number is assigned automatically when virtual card is installed. | Basically same as left Phone registration is available anytime . Extension number input is NOT required by user . Extension number is assigned automatically when virtual card is installed. | Free Ext Number Phone registration is available anytime . Extension number input is required by user . Any free Ext number is OK. Virtual IP card is installed without extension number. |
| SIP-MLT KX-UTxxx | Same as above NT | Same as above NT | Same as left regardless above setting |
| Standard SIP Phone by other maker and KX-NT700 | Same as NCP Phone registration is available anytime . Extension number input is required by user with PIN . They are pre-programmed by Web-MC. | Same as left regardless above setting | Same as left regardless above setting |

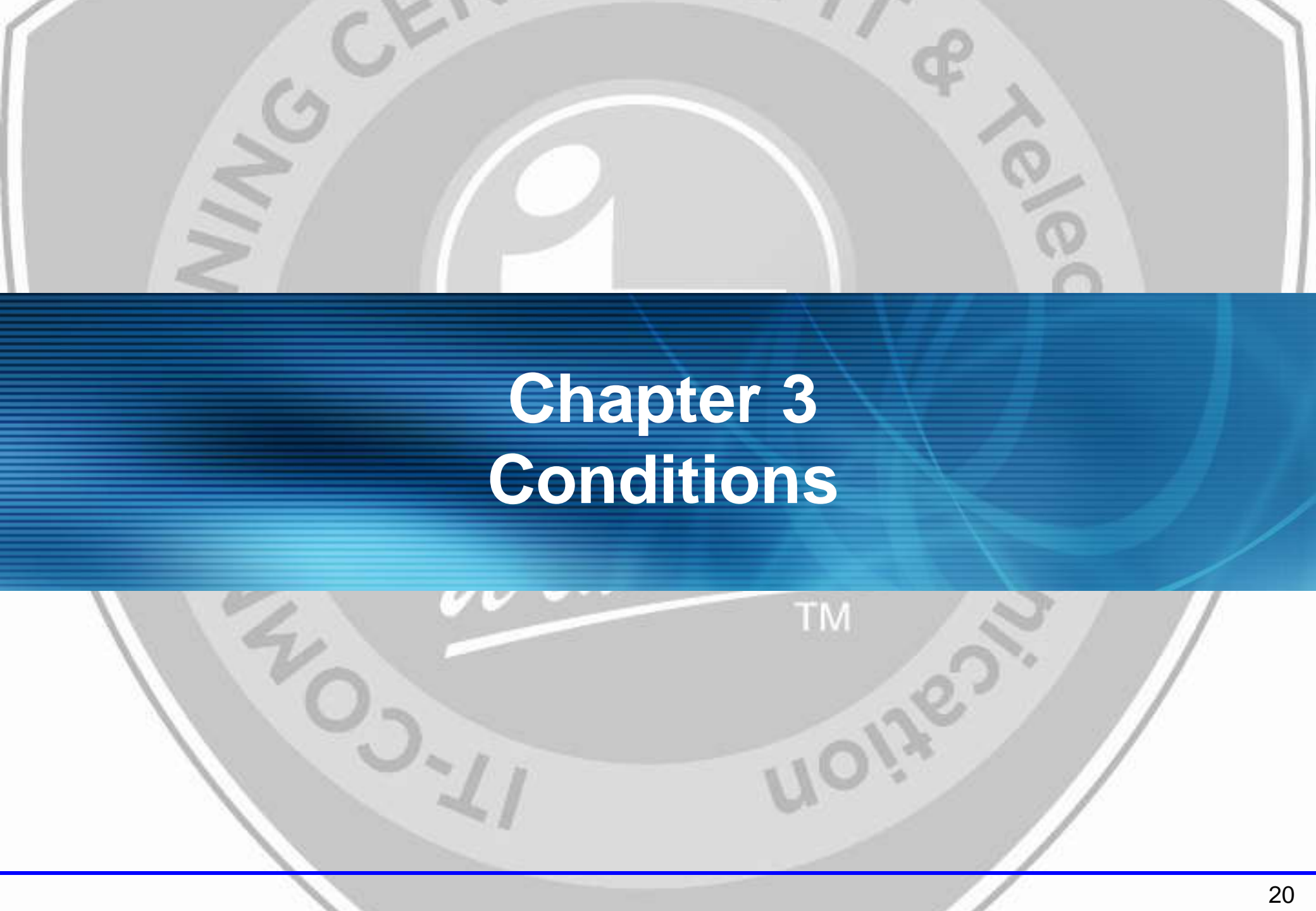
25. KX-NT/UT Registration Option

Condition for registration option is as follows.



- Extension input mode does NOT work if virtual card is installed with extension number using other mode.
- De-registration works only when manual mode.

The screenshot shows the 'Site Property - Main' configuration page. The left sidebar contains a tree view with 'PBX Configuration' expanded to '1. Configuration' and '1. Slot' selected. The main content area shows various settings: Storage Memory Size (2G), Multisite Connection Ability (Enable), P2P Group (1), and P2P Group Name. The 'IP Terminal Registration Mode' section is circled in red and contains three radio buttons: Manual, Full Automatic (selected), and Extension Input.



Chapter 3

Conditions

31. KX-UT : Registration

Set factory default to KX-UT before KX-UT is registered to V-UTEXT card, if KX-UT has been already registered to other PBX or KX-UT has been programmed by log-in to KX-UT directly using Web.

*) Command #136 is to set default except for KX-UT670.

KX-UT670 has dedicated button to set default.

Software version of KX-UT670 should be version 1.12 or later to register to V-UTEXT card (Not V-SIPEXT card).

IP address of destination PBX and IP address of KX-UT phone cannot be input manually from KX-UT when registration. So KX-UT and KX-NS PBX have to be installed in the same network for registration. And the network or KX-NS PBX has to support DHCP server function.

When KX-UT is used in remote office, it is required to dispatch after registration.

When KX-UT are registered to V-UTEXT of KX-NS PBX, log-in to KX-UT by Web is NOT required for any setting.

All required setting including dialing plan is available by KX-NS PBX.

32. KX-UT : Dialing Plan

Dialing plan (Numbering Plan) and timer can be assigned for KX-UT. If dialing plan is not programmed, user has to wait programmed time (Default : 5s) or press [Enter] after off-hook + dialing. It is required to restart KX-UT or OUS/INS of V-UT32EXT card in order to activate this setting.

The screenshot displays the 'UT Option Setting' web interface. On the left, a sidebar menu lists various system control options, with '13.UT Option Setting' highlighted. The main content area is titled 'UT Option Setting' and contains two sections:

- Numbering Plan for UT Series Terminal:** A text input field containing the dialing plan: `[1-4]xx[5[0-9]xx[6xx[[1-9]11]9[1-9]11]`. This field is circled in red.
- Timer for UT Series Terminal:** A section with the label 'Extension Inter-digit (s)' and a dropdown menu set to '5'. This dropdown is also circled in red.

An 'OK' button is visible at the bottom right of the interface.

33. KX-NT/KX-UT : Software Update

One or more KX-NT phone and KX-UT phone can be updated through KX-NS PBX at the same time.

- KX-UT has to be registered to V-UTEXT card (Not V-SIPEXT card) to use this method.

Software has two types.

- (1) Update through PBX as above.
- (2) Update IP phone directly.

Type 1

KX-UT670

For NE/X model

- (With PBX Header) [V01.122](#) (2013 January 25/ 84,438,140 bytes)
- (Without PBX Header) [V01.122](#) (2013 January 29/ 84,438,104 bytes)

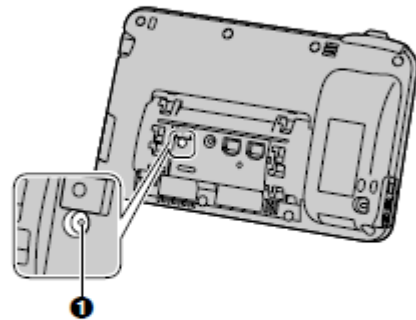
Type 2

34. KX-UT670 : Factory Default

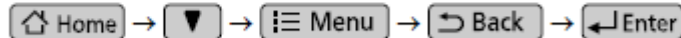
Settings




When you reset the unit, all settings are returned their factory default status and all data is erased. You can reset the unit in the following 2 ways.

- **Clear data and settings**
All unit settings and the settings and registered data of applications are erased. However, applications are not erased.
 - **Reset to factory default**
All data is erased. Applications, apart from pre-installed applications, are also erased.
1. After starting the unit, press and hold the RESET button (❶) with a pointy object for more than 5 seconds until the screen is cleared.



2. After the unit is restarted and ****Reset Menu**** is displayed, tap the key sheet in the following order:



3. Tap  or  to select the resetting type, and then tap .

Note

- For details about the key sheet, refer to the Operating Instructions on the Panasonic Web site (→ see **Introduction**).
- Data stored on the SD card is not erased.
- If you tap **[Cancel]**, the unit will start-up and the Home screen is displayed.
- When the reset is complete, the unit will automatically restart.

The background features a large, faint, circular logo for the Ning Center for IT & Telecommunication. The logo consists of a central stylized figure resembling a person or a signal tower, surrounded by concentric circles. The text "NING CENTER FOR IT & Telecommunication" is arranged in a circular path around the central figure. A blue horizontal band with a gradient and a subtle circular pattern is overlaid across the center of the image.

Thank you !

Revision

| Date | No. (*) | Change |
|--------|---------|---|
| Oct 15 | - | First edition |
| Dec 14 | - | Picture was revised |
| | 34 | This page was added about KX-UT670 factory default. |
| Jan 20 | 1 | Picture was revised. |
| | | |
| | | |

*) Number in title

