

<https://namlong.vn> Hotline: 092 888 2345

KX-HTS Step by Step Guide KX-NTV

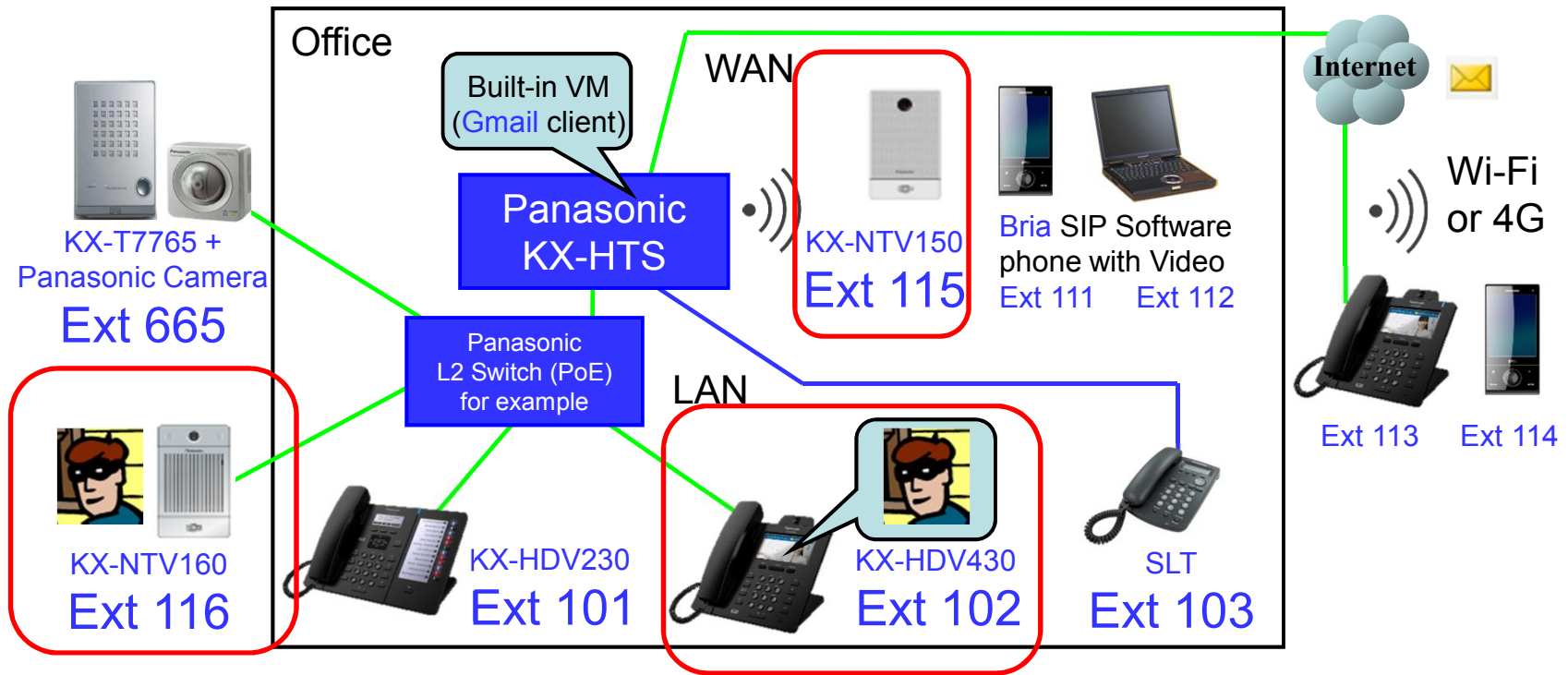
August 5, 2016

Panasonic System Networks
PBX SE team

Specifications are subject to change without notice.

1. Overview for Demo

PBX, phone and security camera can be provided by Panasonic.
Other major PBX maker do not have security camera.



2. Table of Contents

Chapter	Contents
1	KX-HTS programming
2	KX-NTV : Initial setup
3	KX-NTV : SIP registration and video

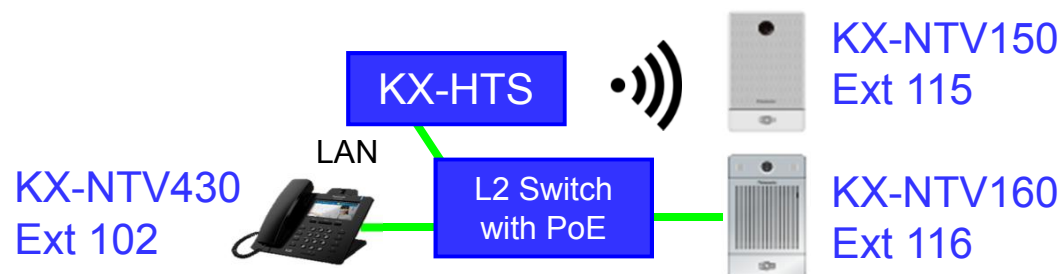
Chapter 1

KX-HTS Programming

11. Click Port to change to SIP.

Click port 116 for example.

The screenshot shows the HTS Web Maintenance Console interface. The title bar reads "HTS Web Maintenance Console 000.00211". On the left is a "PBX Configuration" sidebar with a tree view containing: 1. System, 2. Extension (expanded), 1. Port, 2. Phone, 3. Flexible Buttons, 4. Extension Group, 5. Doorphone, 6. Analog SLT Property, 7. SIP Extension Property, and 3. Trunk. The main area is titled "PBX Configuration" and displays a grid of extension and trunk buttons. The "Extension" buttons are arranged in three rows: Row 1 (17-24) includes 119, 120, 121, 122, 123, 124, 101, 102; Row 2 (9-16) includes 111, 112, 113, 114, 115, 116 (highlighted with a red box), 117, 118; Row 3 (1-8) includes 103, 104, 105, 106, 107, 108, 109, 110. To the right of the extension buttons are "Doorphone" (1, 2) and "Trunk" (5, 6, 7, 8) buttons in the first two rows, and "Trunk" (1, 2, 3, 4) buttons in the third row.



12. Change the port to SIP.

HTS Web Maintenance Console
000.00285

PBX Configuration

- 1. System
- 2. Extension
- 3. Trunk
- 4. TRS/ARS
- 5. System Speed Dialling
- 6. Conference
- 7. Voice Mail

Network Configuration

Port
PBX Configuration > 2.Extension > 1.Port

Extension Number: 116 [0-9]

Extension Name:

Attribution: (Dropdown menu showing SIP 14 selected)

FAX Connection: No Disable

Manager: Enable Disable

13. Assign SIP Password.

Confirm User Name and Location also. Click [Apply].

PBX Configuration > 2.Extension > 1.Port

SIP Extension

SIP Registration Status	Not yet
SIP User Name	phone-016 [0-9 a-z A-Z - .]
Registration Password	<input type="button" value="Edit"/>
Current IP Address	
Current MAC Address	
Phone Location	<input checked="" type="radio"/> Local <input type="radio"/> Remote <input type="radio"/> Remote(G.729)
Alive Check	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
	<input type="button" value="Apply"/> <input type="button" value="Cancel"/>

Extension

111	112	113	114	115	116	117	118
9	10	11	12	13	14	15	16

14. Enable Video Call.

PBX Configuration > 2.Extension > 1.Port

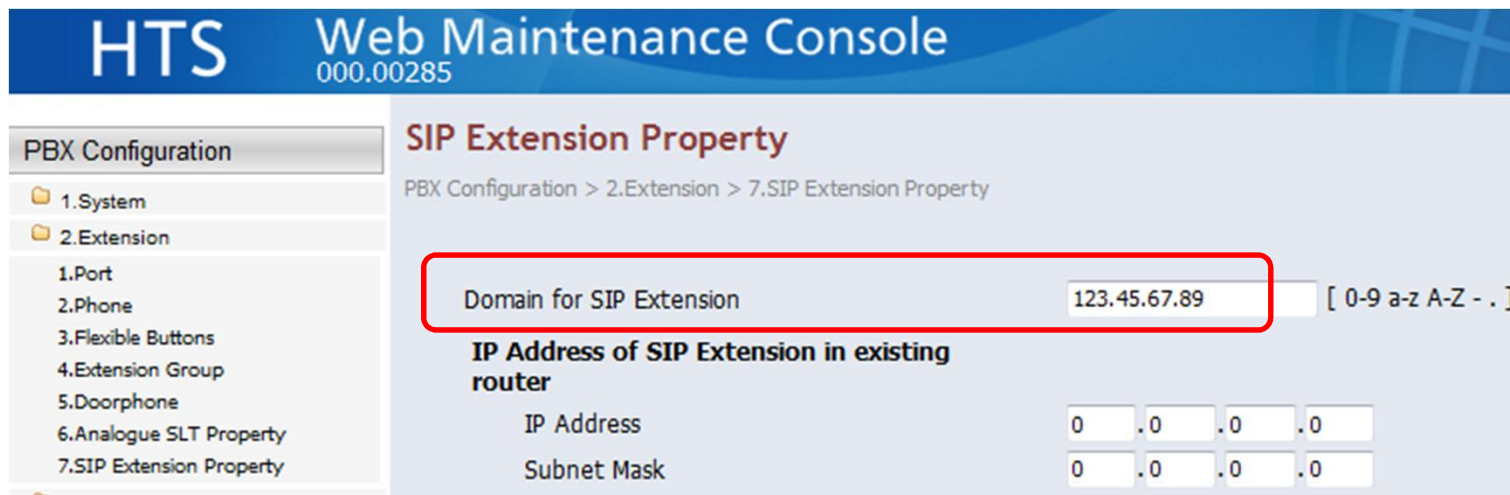
SIP Extension	
SIP Registration Status	Not yet
SIP User Name	phone-016 [0-9 a-z A-Z - .]
Registration Password	<input type="button" value="Edit"/>
Current IP Address	
Current MAC Address	
Phone Location	<input checked="" type="radio"/> Local <input type="radio"/> Remote <input type="radio"/> Remote(G.729)
Alive Check	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Alive Check - Interval	60 (seconds)
Packet Sampling Time	20 (ms)
DTMF	Outband(RFC2833)
Video Support	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Call Limit	8

15. Assign SIP Domain Name.

SIP domain name is required for stronger security.

123.45.67.89 is example.

Some SIP phone does not support character (a-z A-Z) for SIP domain name.



The screenshot shows the HTS Web Maintenance Console interface. The header includes the HTS logo and the text 'Web Maintenance Console 000.00285'. On the left, a navigation menu is titled 'PBX Configuration' and lists several options, with '7.SIP Extension Property' selected. The main content area is titled 'SIP Extension Property' and shows a breadcrumb trail: 'PBX Configuration > 2.Extension > 7.SIP Extension Property'. A red box highlights the 'Domain for SIP Extension' field, which contains the IP address '123.45.67.89' and a character set restriction '[0-9 a-z A-Z - .]'. Below this, there is a section for 'IP Address of SIP Extension in existing router' with two rows of input fields: 'IP Address' and 'Subnet Mask', each with four individual boxes containing the value '0'.

16. Confirm SIP Port Number.

HTS Web Maintenance Console
000.00312

PBX Configuration

- 1. System
- 2. Extension
 - 1. Port
 - 2. Phone
 - 3. Flexible Buttons
 - 4. Extension Group
 - 5. Doorphone
 - 6. Analogue SLT Property
 - 7. SIP Extension Property
- 3. Trunk
- 4. TRS/ARS
- 5. System Speed Dialling
- 6. Conference
- 7. Voice Mail

Network Configuration

Maintenance

SIP Extension Property

PBX Configuration > 2.Extension > 7.SIP Extension Property

Domain for SIP Extension: 123.45.67.89 [0-9 a-z A-Z - .]

IP Address of SIP Extension in existing router

IP Address: 0 . 0 . 0 . 0

Subnet Mask: 0 . 0 . 0 . 0

DSP

IP Side - Gain1 (Network to PBX): +0 (dB)

IP Side - Gain2 (PBX to Network): +0 (dB)

PCM Side - Gain1 (PBX to Network): +0 (dB)

PCM Side - Gain2 (Network to PBX): +0 (dB)

PCM Side - Echo Canceller Type: NE

PCM Side - Echo Canceller NLP: On

PCM Side - Echo Canceller Window Size: 6 (ms)

SIP Extension & SIP Trunk Common

Voice (RTP) UDP Port No. (Server): 12000 (1024 - 65235)

SIP Port Number: 5060 (1024 - 65535)

SIP QoS-DSCP: CS7 (56)

Chapter 2

KX-NTV (Initial Setup)

21. Initialize KX-NTV.

If KX-NTV has been already registered to other PBX, it is required to initialize. Keep pressing reset button for 30s.

<KX-NTV150>



<KX-NTV160>

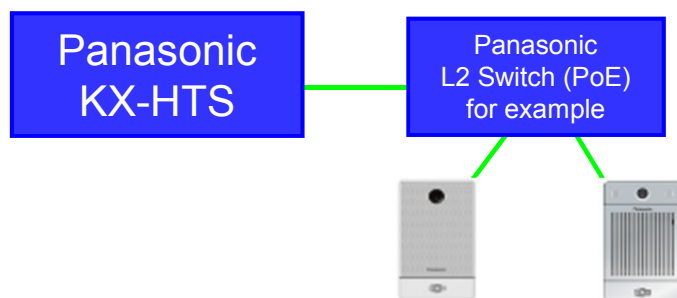


22. Connect KX-NTV to PoE L2-Switch.

Connect KX-NTV150/160 to KX-HTS through PoE L2-Switch.
KX-NTV150/160 gets IP address.

(KX-NTV is not registered as SIP extension automatically.)

- Wait until yellow LED starts flashing.
- LED : Red (15s) -> Off (10s)-> Red (20s) -> Yellow Flash

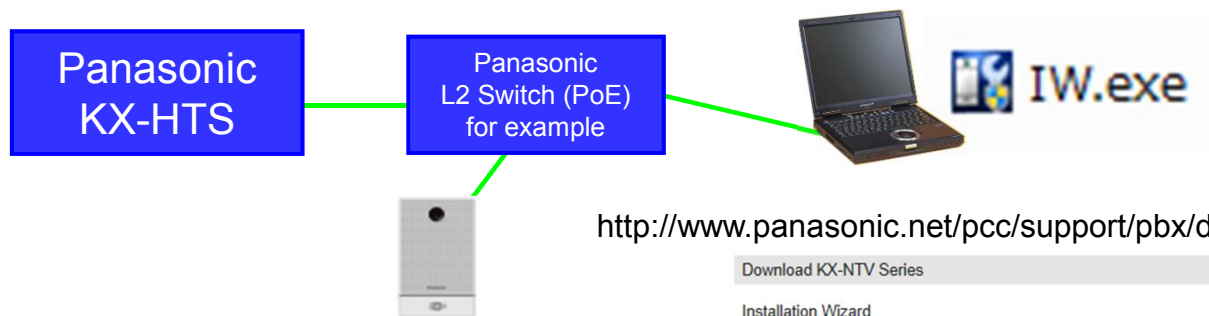


23. Find IP address of KX-NTV using IW.exe.

Installation Wizard

Search

#	MAC	IP Address	Model	Firmware Version
1	00-02-D1-3D-F7-41	192.168.0.153	KX-NTV160	0101a
2	E8-B1-FC-B5-5E-32	10.75.70.127	ST7501	1.11.0.1



<http://www.panasonic.net/pcc/support/pbx/download/ntv/index1.html>

Download KX-NTV Series

Installation Wizard


Category	Name	Size
Application	▶ IW_v1.02.zip	2.52MB
Manual	▶ Installation Wizard User's Manual	

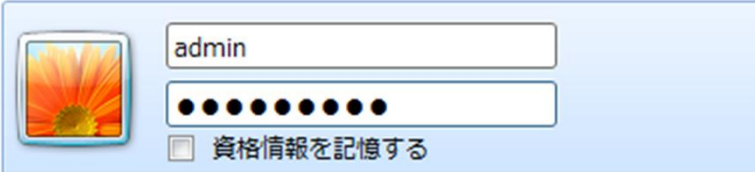
24. Log-in using Internet Explorer.

Log-in to KX-NTV.

ID = admin

Password = adminpass

 http://192.168.0.153

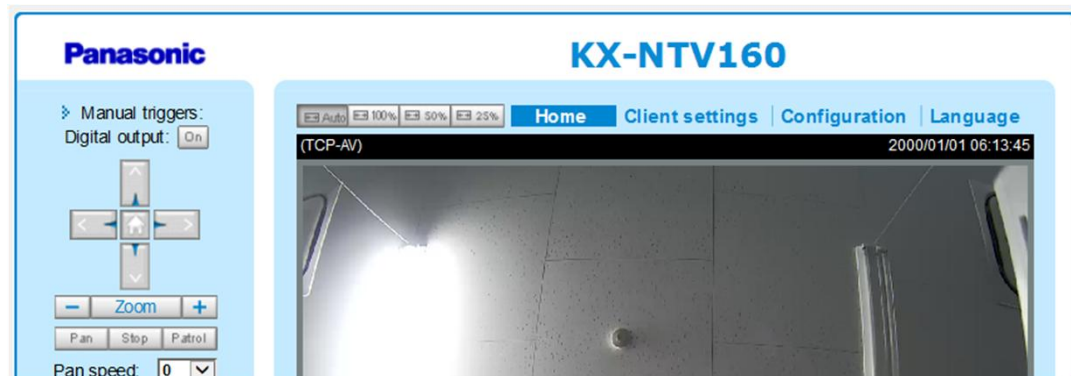


admin

●●●●●●●●

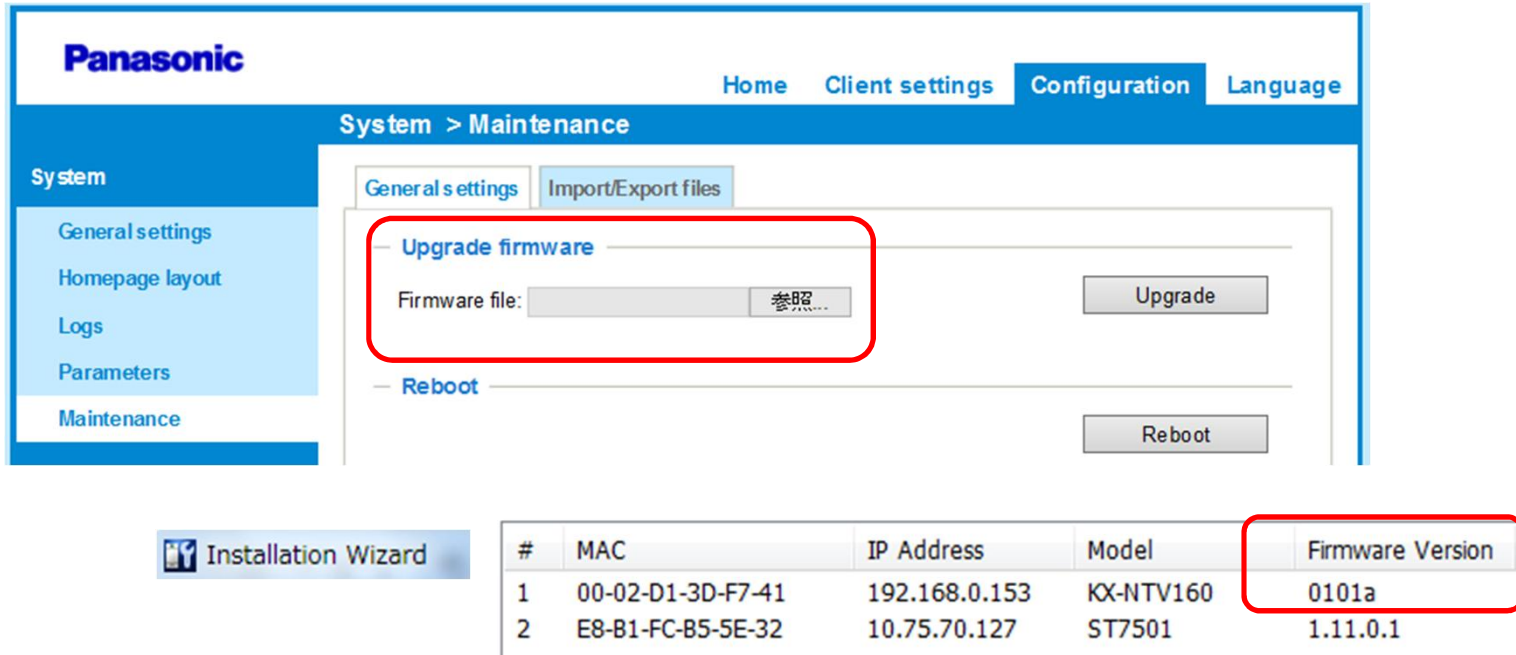
資格情報を記憶する

If web browser is [Internet Explorer](#), add-in module is installed automatically as camera viewer.



25. Update Firmware.

Software of **KX-NTV** has to be version 0101e or later.
If software version is 0101d (first mass production version), KX-NTV SIP registration is not possible for KX-HTS.



The screenshot displays the Panasonic web interface for system maintenance. The 'Upgrade firmware' section is highlighted with a red box, showing a 'Firmware file' input field with a '参照...' (Reference) button and an 'Upgrade' button. Below this, there is a 'Reboot' section with a 'Reboot' button. At the bottom, a table lists system components with their MAC addresses, IP addresses, and model numbers. The 'Firmware Version' column is highlighted with a red box, showing the current versions for two devices.

#	MAC	IP Address	Model	Firmware Version
1	00-02-D1-3D-F7-41	192.168.0.153	KX-NTV160	0101a
2	E8-B1-FC-B5-5E-32	10.75.70.127	ST7501	1.11.0.1

26. Connect KX-NTV150 by Wireless.

Panasonic Home Client settings **Configuration**

Network > Wireless

Enable WiFi

WLAN configuration

SSID: KX-HTS

Wireless mode: Infrastructure

Security: WPA-PSK

pre-shared key:

System

SIP

Media

Network

General settings

Wireless

HTS Web Maintenance Console
000.00285

Configuration

WLAN Security Settings

AP related security configuration settings.

AP name: MyAP

SSID: KX-HTS


Work Configuration

WAN

LAN

Route

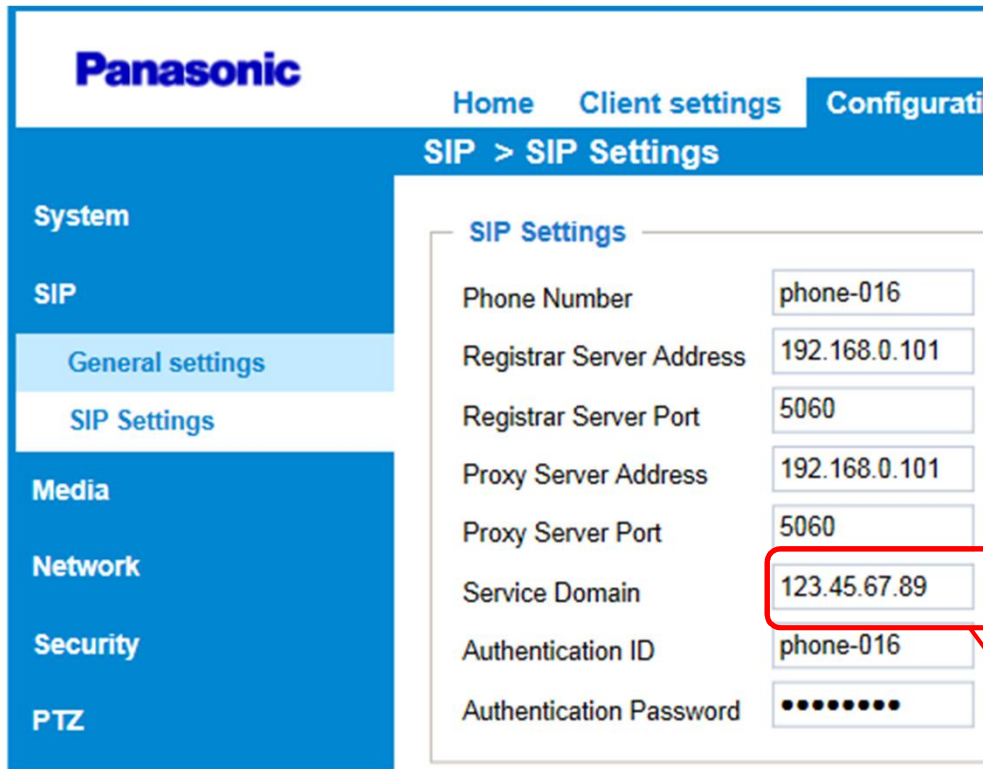
KX-HTS   Remove LAN and connect AC Adapter.

 **IW.exe** IP address of KX-NTV150 does not change usually, even if Wi-Fi is used..

Chapter 3

KX-NTV (SIP & Video)

31. Log in to KX-NTV for SIP registration.



The screenshot shows the Panasonic KX-NTV web interface. The top navigation bar includes 'Home', 'Client settings', and 'Configurati'. Below this, the breadcrumb trail is 'SIP > SIP Settings'. The left sidebar contains a menu with categories: System, SIP (with sub-items 'General settings' and 'SIP Settings'), Media, Network, Security, and PTZ. The main content area is titled 'SIP Settings' and contains the following fields:

Phone Number	phone-016
Registrar Server Address	192.168.0.101
Registrar Server Port	5060
Proxy Server Address	192.168.0.101
Proxy Server Port	5060
Service Domain	123.45.67.89
Authentication ID	phone-016
Authentication Password	••••••••

KX-HTS
192.168.0.101 : 5060
Domain : 123.45.67.89
115 : phone-015 : ****
116 : phone 016 : ****



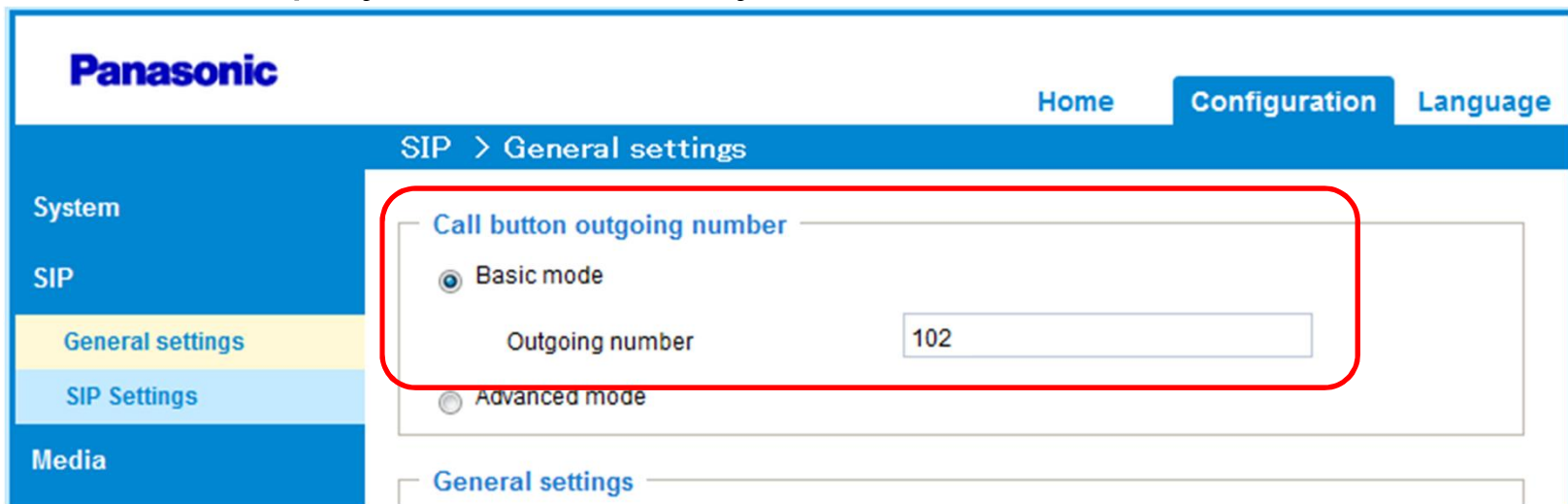
LED becomes green after registration.

“Phone Number” is not extension number.

192.168.0.101 if domain is not programmed in KX-HTS.

32. Assign Destination of Call Button.

Video is displayed automatically **after call is answered**.



The screenshot shows the Panasonic configuration web interface. The top navigation bar includes 'Home', 'Configuration', and 'Language'. The left sidebar lists 'System', 'SIP', 'General settings', 'SIP Settings', and 'Media'. The main content area is titled 'SIP > General settings'. A red box highlights the 'Call button outgoing number' section, which contains a radio button for 'Basic mode' (selected), an 'Outgoing number' input field with the value '102', and a radio button for 'Advanced mode'. Below this is a section for 'General settings'.



KX-NTV115
Ext 115



SIP Software phone
Ext 111



KX-NTV160
Ext 116



KX-HDV430
Ext 102

33. Reference : Group Call

If the destination is extension number for group, group call is also available.

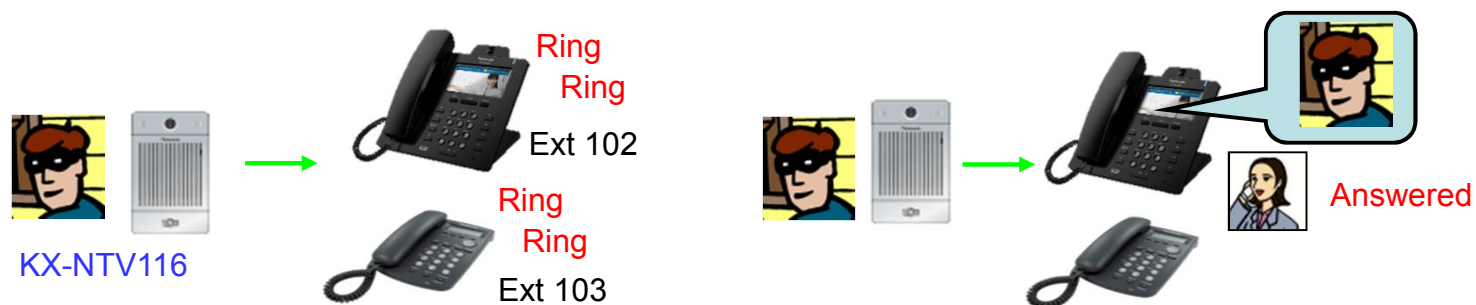


SIP > General settings

Call button outgoing number

Basic mode

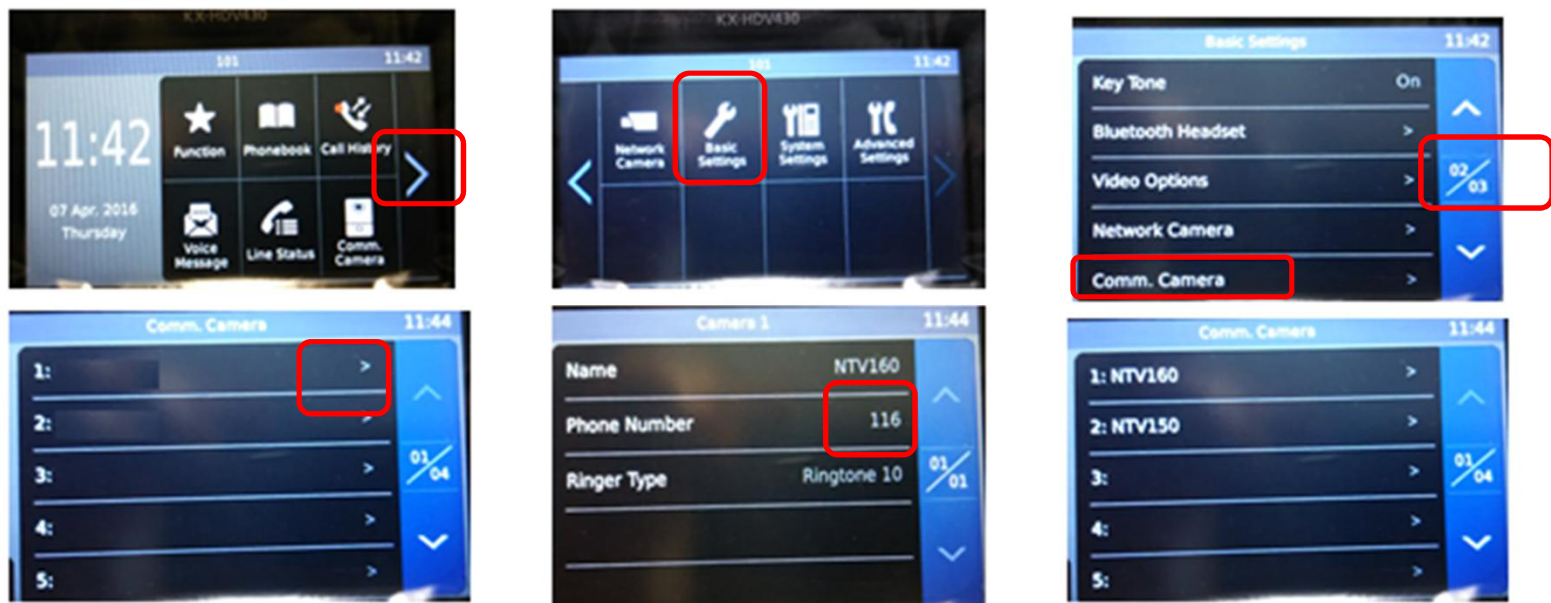
Outgoing number



34. Assign KX-NTV as Camera.

Video can be displayed automatically before KX-HDV430 answers the call from KX-NTV, if extension number of KX-NTV is assigned.

KX-HDV430 answers the call from KX-NTV automatically at technical point of view in order to start video communication if this feature is enabled by KX-HDV430. Voice from KX-HDV430 is muted until “Off hook” manually. This feature cannot be used for group call because one of KX-HDV430 answers the call.



35. Adjust General Settings.

<KX-NTV150>

Home Client settings Configuration

SIP > General settings

Call button outgoing number

Basic mode

Outgoing number

Advanced mode

General settings

Call ring duration second

Call duration second

Video monitor before answer

Ringback tone after finish video monitor

Indication of call status when receiving call

<KX-NTV160>

Home Client settings Configuration

SIP > General settings

Call button outgoing number

Basic mode

Outgoing number

Advanced mode

General settings

Call ring duration second

Call duration second

Video monitor before answer

Ringback tone after finish video monitor

Indication of call status when receiving call

Default of call ring duration is 30s. This is too long for demo.
KX-HDV430 can call KX-NTV150 without tone by above programming example.

36. Adjust Video for KX-HDV430 display.

The screenshot shows the Panasonic configuration interface. The top navigation bar includes 'Home', 'Client settings', 'Configuration', and 'Language'. The left sidebar lists 'System', 'SIP', 'Media', 'Image', 'Video', 'Audio', and 'Network'. The main content area is titled 'Media > Video' and contains a 'Stream' tab. Under the 'Stream' tab, there are two expandable sections: 'Video settings for stream 1 (RTSP)' and 'Video settings for stream 2 (SIP)'. The 'Video settings for stream 2 (SIP)' section is expanded and highlighted with a red box. It shows the 'H.264' codec selected with a radio button. Below this, three settings are listed: 'Frame size' set to '640x360', 'Maximum frame rate' set to '30 fps', and 'Intra frame period' set to '1 S'. Each of these three settings is also highlighted with a red box.

Panasonic

Home Client settings **Configuration** Language

Media > Video

Stream

Video settings for stream 1 (RTSP)

Video settings for stream 2 (SIP)

H.264

Frame size: 640x360

Maximum frame rate: 30 fps

Intra frame period: 1 S

37. Assign 512 K bps to Maximum bit rate.

Media > Video

Stream

Video settings for stream 1 (RTSP)

Video settings for stream 2 (SIP)

H.264

Frame size:

1280x720

Maximum frame rate:

30 fps

Intra frame period:

1 S

Video quality

Constant bit rate:

Fixed quality:

Quality:

Good

Maximum bit rate:

Customized

512 Kbps [20~8000]

Default is 1000 K bps.
Default is too big if KX-NTV to call
SIP extension through internet.

Thank you !

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Revision

Date	No.	Change
June 30, 2015	All	First draft
July 23, 2015	All	2nd draft
June 15, 2016	All	3rd draft
July 28, 2016	All	Step by step guide was divided for KX-NTV.
		First official release
August 5, 2016	16 (Page 10) 31 (Page 19)	Default of SIP port number is 5060.
	26 (Page 17)	Remove LAN.
	33 (Page 21)	SLT is used as example for group call.
	36 (Page 24)	Recommendation of frame size was revised.